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ABSTRACT

Noting that young children need early childhood settings supporting the development of the full range of capacities that will serve as a foundation for future school learning, and that adults have an opportunity and an obligation to assist children in becoming active participants in the learning process, this document details foundations to Indiana's academic standards for preschool children to support the state's teachers, parents, and caregivers as they develop appropriate experiences for young children. The introductory section discusses the importance of developmentally appropriate learning environments for 3- to 5-year-olds, adaptations for exceptional learners, recommended practices for children who are English language learners, and technology for young children. The remainder of the document presents foundations for young children in the content areas of: (1) English/language arts (reading, reading comprehension, literacy and analysis, writing process, writing application, and listening and speaking); (2) mathematics (number sense, computation, algebra and function, geometry, measurement, and problem solving); (3) science (the nature of science, scientific thinking, environments, and communication); (4) social studies (history, civics and government, geography, economics, and individuals, society, and culture); (5) physical education (gross/fine motor and sensory development, learning and development of motor skills, enjoyment of motor and sensory experiences, responsible personal health and safety practices, and respect for differences); (6) music (appreciation, participation/exploration/production, and analysis; and (7) visual arts (appreciation, creating art, and careers and community). Each content section includes an introduction, a statement of the guiding principles behind the foundation, and the early learning foundation for each of the Indiana Academic Standards for Kindergarten. Each individual foundation describes skills appropriate for 3- to 5-year-olds; gives examples of activities to support growth and learning

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in each area; describes the adult's role; offers suggestions for materials; and presents a variety of scenarios from the classroom, home, or outdoor environment to illustrate experiences addressing the foundation. Resources for adults and children are included at the end of each content area. Completing the document is a table delineating sequences of developmental growth, and a glossary of relevant terms. (KB)

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ED 482 854

# FOUNDATIONS
# FOR
# YOUNG CHILDREN

## to the
## Indiana Academic Standards

Indiana Department of Education

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# INTRODUCTION

**Children come into this world eager to learn.
The first five years of life
are a time of enormous growth of linguistic,
conceptual, social, emotional,
and motor competence.**

(*Eager to Learn,* 2000, p.1)

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## *What do we know about young learners, ages 3 to 5 years old?*

Young learners create understanding and knowledge actively, combining new concepts and ideas into what they already know. Research on brain development and how young children learn has demonstrated the phenomenal pace at which learning takes place from the moment of birth.

Adults have an opportunity and an obligation to assist children in becoming active participants in the learning process throughout their lives. To grow and learn, young children need early childhood settings that support the development of the full range of capacities that will serve as a foundation for future school learning.

It is vitally important that all children have learning experiences that are:

- Appropriate and based upon current knowledge and research of child development and learning.

- Focused on the strengths, needs, and interests of each individual child.

- Respect the social and cultural context in which each child lives.

Only after addressing these three essential areas of information and knowledge, can individuals working with young children make decisions concerning appropriate learning experiences.
***Developmentally appropriate practice** can be defined as a product of the adult making decisions based on at least three important kinds of knowledge and information:*

## *What is developmentally appropriate learning for young children?*

The concept of developmentally appropriate has two dimensions: age appropriateness and individual appropriateness. Age appropriateness refers to the universal, predictable sequences of growth and change that occur in children during the first nine years of life. Knowledge of typical development of children within the age span served by any program/home provides a framework from which the adult can prepare the learning environment and plan appropriate experiences. Both the curriculum and adults' interactions with children should be responsive to individual differences. Each child must be viewed as a unique person with an individual pattern and timing for growth. Learning for young children is the result of interaction between the child's thoughts and experiences with materials, ideas, and people. This child development knowledge should be used to identify the range of appropriate behaviors, activities, and materials for a specific age group and used in conjunction with understanding about individual children's growth patterns, strengths, interests, and experiences to design the most appropriate learning environment. Different levels of ability, development, and learning styles are expected, accepted, and used to design appropriate experiences. For the content and the teaching strategies to be developmentally appropriate, they must be age appropriate and individually appropriate.

## *What does research say about appropriate learning environments for young children?*

Early childhood experts, along with the National Research Council's Report and Review Committee, have provided an independent review of quality experiences for young learners. The summary of findings from this study was published in a book entitled, *Eager to Learn: Educating Our Preschoolers* (2002). From the Executive Summary of this study some characteristics of quality experiences for young learners are listed below:

- Responsive interpersonal relationships with adults nurture young children's dispositions (desire) to learn and their emerging abilities.

- When curriculum aims are specified and integrated across domains, children tend to learn more and are better prepared to master the complex demands of future formal schooling.

- Young children who are living in circumstances that place them at greater risk of school failure—including poverty, low level of maternal education, maternal depression, and other factors that can limit their access to opportunities and resources—are much more likely to succeed in school if they have access to well-planned, high-quality early childhood experiences.

- Cognitive, social-emotional, and motor development are complementary, mutually supportive areas of growth and require active attention.

The committee supports the notion that it is the **whole** child that must be developed. Early childhood experiences should focus on all ***domains*** or aspects of development:

- ***Social/Emotional:*** children's feelings about themselves, the development of responsibility, and their ability to relate positively to others.
- ***Cognitive:*** children's thinking skills, including the development of symbolic and problem-solving skills.
- ***Physical Development:*** children's gross (large) and fine motor development.
- ***Self-help:*** children's capacity to take care of personal needs and acquiring independence in age-appropriate eating, toileting, dressing, and hygiene tasks.
- ***Communication and Literacy:*** children's ability to communicate through words, both spoken and written. (Source: Trister Dodge, et al., (2000). *Connecting Content, Teaching, and Learning.* Washington, DC: Teaching Strategies.).

Effective, quality programs for young children:

→ Acknowledge and encourage each child's efforts.
→ Model and demonstrate.
→ Create challenges and support children in extending their capabilities.
→ Provide specific directions and instruction.
→ Organize the environment in ways to pursue educational goals for all children.

All of these strategies need to be used in the context of play and adult-directed activities in which children are actively engaged and responsive. Recognition must also be given to the fact that children learn from each other and from interactions with the physical environment.

## *Why have these foundations been written?*

From kindergarten through twelfth grade, academic standards have been established to promote excellence and equity in education. Excellence is important in education today for future success. Equity is important so that all children have the same opportunities for success. Standards are a **framework** instead of a complete curriculum. In other words, standards represent the ***essential content*** every student needs in order to have a basis for understanding a subject area. The actual classroom curriculum is generally much richer with broader and deeper understandings than those in the standards. The framework does, however, help to identify any gaps or points not being presented as essentials in the curriculum. At the heart of the effort to promote quality early childhood experiences for all, foundations to the standards have been developed to support all adults that work with three to five year olds.

These foundations have been developed by individuals with expertise in each specialized area and have been based on the latest national research and findings for each content area. By outlining specific skills and concepts and giving examples of instructional strategies, these foundations will support teachers, parents, and caregivers as they develop appropriate experiences for young children.

The primary position of the development of foundations to standards was that a program designed **for** young children be based on what is known **about** young children. These foundations are designed to assist all who work with young children in approaching the various domains from a developmentally appropriate perspective.

## *How to Use the Foundations for Young Children*

The Indiana *Foundations for Young Children* address all the content areas: English/language arts, social studies, mathematics, science, physical education, health, and the arts. Each content section begins with an introduction, the guiding principles behind the foundations, and the foundation for each of the Indiana Academic Standards for kindergarten. The foundations reflect the types of experiences and interactions early learners need to develop the foundation.

The term **young children** refers to any child, ages 3 – 5, regardless of whether the child is in an early childhood setting or at home. The term **adult** refers to any adult who has interactions with the child whether the person is a teacher, caregiver, friend, or family member. The term **environment** refers to anywhere young children might be.

Each individual foundation is divided into sections.

- YOU MAY SEE THE CHILD BEGIN TO:
  This section gives a description of what adults may see children begin to do at this age. These describe skills appropriate for young learners.

- A CHILD CAN BE SUPPORTED BY AN ADULT WHO:
  This next section gives examples of many activities adults can do with children to support growth and learning in each area. Statements of the adult's role as a facilitator/teacher of learning for young children are included. Many of these contain suggestions for materials to include in the environment.

- **Scenarios:**
  A variety of scenarios are given as examples of experiences children and adults may be doing that would address each foundation. Some scenarios are written in the classroom environment, some in the home environment, and some are outdoors. All activities planned by the child and the adult should reflect the needs and interest of the young learners involved.

**The foundations and experiences are NOT inclusive but rather a guide that will assist the young learner in preparing for success. These descriptions are not written in any particular order and, because children grow and learn at different rates and in different ways, should NOT be used as a checklist**

## *Adaptations for Exceptional Learners*

We know that children learn at different rates and have varying abilities. Children bring different backgrounds and experiences into the learning environment but when exceptional learners are in the early childhood environment, the range of differences in those learning rates and varying abilities increases. Exceptional learners are limited in their ability to progress without adaptations in their early childhood programs.

### *Who are Exceptional learners?*

- Children with disabilities, developmental delays, or special needs.
- Children with specific intellectual, academic, or creative strengths.

## *What are Adaptations?*

Adaptations are techniques and strategies designed to respond to a child's needs. Adults who recognize and appreciate the differences in children readily adapt instruction. Adapting instruction for exceptional learners is similar but more extensive and crucial for satisfactory progress to be made. Other terms for adaptations include modifications, accommodations, or differentiation.

Some children with mental or physical disabilities may need structured, teacher-assisted activities. Yet, children who are developmentally advanced need activities that encourage curiosity and independence. Rather than over-protecting or stifling exceptional learners, realize they are capable of taking an active part in activities and play. The role of the adult is to help the child learn acceptable ways to grow socially and academically.

The following teaching strategies and techniques are designed to help adults adapt activities or schedules for learners with varying needs.

- Sequence and Pace
- Child Preferences and Interests
- Special Equipment
- Peer Support
- Environmental Supports
- Materials
- Modify Activities
- Direct Adult Support
- Alternative Goals

## *Who Decides which Adaptations to Use?*

Collaborative planning is very important when planning appropriate adaptations for children. Sometimes enrollment in the early childhood program is part of a special educational program designed specifically for a child with a disability. This type of program has learning goals for the child created by the special education teachers, the parents, and hopefully, the early childhood staff. These goals are stated in the child's Individualized Educational Program (called an IEP), and a member of the special education staff should share these objectives with the early childhood teacher.

To successfully meet the needs of exceptional learners, early childhood teachers, specialized professionals, and parents must plan the child's program together. At times, the special education teacher may work directly with the child, may co-teach in the classroom, or provide consultation to the early childhood teacher. Forming a collaborative relationship is essential for creating a successful learning environment. Such relationships require time for meetings, respect for others educational philosophies, and support from the early childhood program's administration.

## *What are Some Effective Adaptation Strategies and Techniques?*

### Sequence and Pace

The adult may change the order in which activities occur, the amount of time allotted for the child to complete an activity, or the preparation for transition across activities.

- Create a predictable classroom schedule.
- Provide additional time for children who need it to complete an activity or routine (e.g., getting dressed to go outside, eating snack).
- Provide alternate activities for a child finishing an activity (for example, snack) before others.
- Create a picture schedule to help children understand which activity or routine may occur next.
- Remind children before a transition, and tell them which activity occurs next.

## Child Preferences and Interests

The adult may use materials, toys, or a person for which a child has shown a special interest or preference to support active participation in activities or routines.

- Choose a topic or theme that is of special interest to the child (e.g., for a child who likes dinosaurs, have a few dinosaur books available during a book activity).
- Plan for a special or well-liked adult to lead an activity in which the child does not usually participate.
- Allow a child to select the activity in which he/she would like to participate, and introduce skills the child may need to learn during that activity (e.g., for a child who may be working on requesting, make sure the child uses the requesting skill in an art activity he/she has chosen).
- Adapt and create learning centers so that the concepts, ideas, and information are taught and reinforced in each of the multiple intelligences: linguistic, musical, logical-mathematical, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist.
- Provide opportunities for children to show their individual talents and interests.

## Special Equipment

The adult may use adaptive devices or equipment for individual children.

- Use loop scissors or other adaptive scissors for a child who does not have the hand strength to cut with regular scissors.
- Use a bean bag chair or cube chair for a child in a wheelchair during circle time so that the child is on the same level as everyone else in the activity.
- Use adaptive spoons with built-up handles, nonskid surfaces under bowls or plates, and/or cups with cover tops or straws.
- Use a wagon in which two children ( the non-walker, the slow walker or another child) can sit, with different children pulling the wagon each day for transitions involving walking long distances.

## Peer Support

The adult may involve peers in encouraging children's active and appropriate participation in class activities.

- Use a variety of means to guide children in sharing and appreciating differences.
- Create an atmosphere enabling all children to get to know themselves and others.
- Support a child who is having difficulty by pairing the child with a peer who is successful in the task.
- Assign a buddy to help the child get in line or make transitions with the group.
- Praise appropriate behavior.
- Allow times for self-selection in groups based on interests, readiness level, and learning style.

## Environmental Supports

The adult may adapt the flow of the room, activity areas, seating and position options in ways that promote active participation.

- Arrange the classroom so that activity areas are clearly defined.
- Ensure that furniture is the appropriate size for children in the classroom.
- Place materials so that children can reach them independently.
- Make a quiet area available in the classroom (e.g., a place a child can go when feeling upset or overwhelmed and unable to handle behavior).
- Provide individual work spaces by using trays, box lids, placemats, etc. for children having difficulties keeping hands to self.
- Allow the child with a physical or mental disability an opportunity to use unfamiliar equipment in the classroom or playground ahead of time.
- Place pictures or symbols on shelves and containers to make cleaning up a matching game for children who have difficulty putting toys and equipment away.

## Materials

The adult may modify materials and information so that the child can participate as independently as possible.

- Use picture cues, simplify language, or demonstrate instructions.
- Change or reduce the number of steps in a complex task.
- Provide a variety of materials at the sand table to allow for differences in ability to grasp and release.
- Lower the easel, give the child a chair, or buy/make a tabletop easel for the child who has difficulty standing.

- Tape wooden blocks to the pedals of a tricycle or big wheel for the child who has difficulty reaching the pedals.

- Wrap a piece of foam rubber (e.g., remove the foam rubber tubes on hair curlers) around the crayons or large pencils for the child who has difficulty grasping crayons.

- Use clamps or Velcro to attach the toy to a hard surface for the child who has difficulty using one hand.

- Glue a small piece of Styrofoam to each page making it simpler to turn pages.

- Use pictures and books that are bold and uncluttered for the child with visual impairment - high contrast colors in visual images are especially effective.

- Provide materials to promote higher level thinking such as sorting, classifying, sequencing, counting, and comparing and contrasting.

- Provide resources for activities that nurture and encourage gifted behaviors (e.g., puppets for performances).

## Modify Activities

The adult may break a complex task into smaller parts, reduce the number of steps, adapt the skill level, or modify the rules of how the child approaches the activity. The adult may complicate a task by adding more parts or steps.

- Hand the pieces to the child one by one when the child is distracted by toys or puzzles with many pieces.

- Break activities such as cooking projects, craft projects, and table games into parts by describing or making pictures of the steps in clear terms: "First we do (x), then we do (y)."

- Respond to children's interests by preparing craft activities with individual children in mind.

- Increase gradually the steps the child does independently.

## Direct Adult Support

Adults may provide assistance in an activity or routine to support the child's participation and learning. The amount of personal assistance provided will vary from child to child. Adults may model another way to play or expand on the child's play or behavior.

- Provide hand-over-hand assistance for some activities.

- Observe children during play to identify interests.

- Position an adult near the child who runs in the hall or play area.

- Give the child full eye contact and a smile to reinforce on-task behavior.

- Redirect a child who is on the verge of losing control by changing the pace, adjusting activity, or just giving a gentle touch before the child's behavior escalates.
- Provide a mentor for children with specific interests or talents.

### Alternative Goals

Adults may adapt how the child can respond, including how much you expect the child to accomplish. Different goals and outcomes for children within the same learning activity can be identified.

- Allow children to respond to adults or activities in many different ways (e.g., present a block and a crayon to represent two different activities, and a child with cerebral palsy could indicate his choice using eye gaze or pointing).
- Embed gross motor skill practice in everyday routines.

## *Recommended Practices for Young Children Who Are English Language Learners (ELLs)*

Young children come to us with varying experiences, backgrounds, and languages. Children whose home language is not English face the challenge of adapting to an early childhood setting that may not be consistent with their home culture and language. It is important for caregivers to assist young children in this transition through a respect for and acknowledgment of the language skills, knowledge, and culture that they bring with them to the early childhood setting.

The National Association for the Education of Young Children (NAEYC) states that caregivers can best meet the needs of children whose home language is not English by "preserving and respecting the diversity of the home language and culture that each child brings to the early learning setting" (NAEYC, 1995, p. 7). Most of the recommended practices for working with children who are English language learners are very similar to strategies encouraged in early childhood education, special education, and are simply techniques of good teaching.

It takes a long time to become fluent in any language, and children acquire English as a second language in different ways and at different rates. The difficulties in learning a second language should not be confused with a learning disability. Some children go through a "silent period," for up to as long as six months, in which they do not speak, but are learning to understand English. Other children quickly attempt to communicate in English and may mix or combine English with their home language (for example, "Quiero juice."). Some children may already be using simple phrases and appear fairly fluent. It is important to know that, even though a child is able to easily communicate with friends, research shows that it may take four or more years to become fluent in the cognitive language skills that are needed for academic learning (Cummins, 1981; Collier, 1989).

The following levels of English proficiency may help in setting appropriate expectations for individual children who are acquiring English as a second language. These levels should be used as a guide in understanding the language acquisition process.

**Level 1:** *Pre-production:* This is often referred to as the "silent period." Children are learning to understand the language and may not speak at all.

**Level 2:** *Early Production:* Children use single words or simple phrases to answer questions.

**Level 3:** *Speech Emergence:* Children start to use simple sentences and correct grammar to verbalize information.

**Level 4:** *Intermediate Fluency:* Children start to use more complex speech production and appear to be fluent. However, they may not have the vocabulary and grammar necessary to adequately express the concepts being learned.

**Level 5:** *Fluent English Proficient:* Children are on par with their native English-speaking peers.

While young children are in the process of learning English, it is important for adults to encourage the development of the child's home (native) language. Families transmit values, beliefs, and a sense of belonging to their children through their home language. Children also learn basic concepts necessary for later learning through everyday conversation and interactions when families continue to use the home language. Native language development will accelerate the acquisition of English. Encouraging families to speak to children in English at home, when family members may not be fluent English speakers themselves, can result in limited verbal interactions and modeling of incorrect language use. Families should be encouraged to speak and read to their children in the home language; children will learn English quickly from others in early childhood settings.

There are strategies that caregivers can use to help young children who are learning English feel comfortable in early childhood settings. Many of the following strategies are good techniques for use with all young children, particularly as they enter early childhood programs.

- Adults should speak clearly, use simple words, short phrases, and repetition and avoid the use of slang.

- Instead of correcting children's language, it is important to paraphrase and model correct use of English.

- Adults do not have to be bilingual to work with English language learners. However, it is helpful to learn a few words important to the child and his/her needs (such as words for food, for using the bathroom, and for family members).

- Caregivers can seek assistance and support from those with expertise in the language and the culture of the child, including family members, ESL providers, and others in the community.

- Adults who work with children learning English should use gestures, pictures, and real objects to help communicate with children.

- The many types of hands-on activities familiar to quality early childhood programs lend themselves to working with children who are not yet fluent in English. Children can express themselves through drawing, painting, using clay, and movement activities before they are able to use English to communicate.

- Caregivers should incorporate children's culture and language into activities whenever possible. Children will be more comfortable in an early childhood program if they can bring in pictures of their family, have favorite foods for snacks, use materials that are familiar to them in dramatic play, and hear their home language in the early childhood setting. Adults can play music in the child's language, have bilingual volunteers come in to read to the children in their home language, and ask families to tell stories in their home language on cassette tapes.

- Children should always be encouraged to speak with each other in their home language, as well as in English.

These techniques will make learning more meaningful and comprehensible to second language learners. Above all, it is important to be creative, open minded, sensitive, and familiar with the language acquisition process.

All children have different needs. As young children learn English, some will find it easier than others. Most teaching strategies that are encouraged in early childhood are already appropriate for young children learning a second language. It is not necessary to change the early childhood curriculum for children whose home language is not English, but it is important to support them in their efforts to communicate. Working closely with families, caregivers can create an environment for young children that respects their culture, encourages the development of their home language, and supports their English language learning.

*Please contact the Division of Language Minority and Migrant Programs, Indiana Department of Education, at 800-382-9962 or 317-232-0555 for more information on working with English language learners.*

## *Common Terms*

| | |
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| **ELL:** | English language learner: This term is used to identify a student who is learning English as a new or second language. |
| **LEP:** | Limited English Proficient: This term identifies a student who is learning English as a new or second language. |
| **ESL:** | English as a Second Language: This term is used to identify a course or type of service provided to ELL/LEP students. |
| **ENL:** | English as a New Language: This term means the same thing as ESL. |
| **FEP:** | Fluent English Proficient: This term identifies a student whose native language is other than English but is now fluent in English (level 5). |
| **Bilingual Education:** | A program in which two languages are used in content area instruction. |
| **Home language:** | The dominant language spoken in the home. |
| **Native language:** | The first language of the student. |
| **Dominant language:** | The language(s) in which the individual is most fluent. |
| **Sheltered instruction:** | Teaching techniques and strategies that make the lesson more comprehensible for English language learners. |

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### Organizations

Teachers of English to Speakers of Other Languages (TESOL), Inc.: www.tesol.edu

National Association for the Education of Young Children (NAEYC): www.naeyc.org

National Association for Bilingual Education (NABE): www.nabe.org

## TECHNOLOGY FOR YOUNG CHILDREN

Access to and the use of information are important skills necessary for the future. To be successful in the future, young children will need to be knowledgeable, productive, independent, creative thinkers in a technology-based society. All adults working with children share the responsibility for providing programs that appropriately support each child's technological learning and development.

Appropriate technology tools are integrated into the environment and used to enhance learning for all children. For example, a child who cannot hold or manipulate a writing tool may be able to design drawings with elements in specific software programs.

The child's own interests and abilities should drive the decisions concerning the type of technology tools that are appropriate for the child. These tools should help children construct their own knowledge through open-ended, discovery-based activities. It is important to remember that the computer is only one of the many technology tools available. Young children can use cameras and scanners, measuring devices, and audio and video equipment to explore their worlds.

The following two pages are copies of two of the National Association for the Education of Young Children's (NAEYC) *Early Years are Learning Years* information sheets for adults who work with young children. Information on a variety of topics of interest to parents and educators is available on the NAEYC website: www.naeyc.org.

# ENGLISH/LANGUAGE ARTS

## *FOUNDATIONS FOR ENGLISH/LANGUAGE ARTS*

Children are language learners from the first days of life, when babies begin to experiment with sounds. Learning their native language is the most important task the child accomplishes in becoming a functioning human being. In our modern society, gaining the ability to extend spoken language into reading and writing is even more essential than in previous generations. We must do everything we can to assure every child becomes literate.

Recent research has extended our understanding of how and when language is acquired and the critical importance of the early years. We have also gained a heightened appreciation of the adult's role in the success—or failure—of a child in becoming literate. It is of utmost importance that we as parents, teachers, and caregivers of young children gain an appreciation of the role we play as models and teachers of the language arts: speaking, listening, writing, and reading.

The following sections will outline major areas of language learning, how we might expect to see children exercising their emerging language skills, and how adults and older children can support and extend the natural interest and internal drive of children to learn language.

A cautionary note: The following sections apply to a wide age range and acknowledge that children grow and develop at widely different paces.

## *GUIDING PRINCIPLES*

- **Adults who live and interact regularly with children can profoundly influence the quality and quantity of their literacy experiences.**
  *[National Research Council, 1998]*

- **Reading and writing for meaning are paramount.**
  *[Ministry of Education, 1996; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998; Bredekamp, S. & Copple, C., (Eds.), 1997; National Research Council, 1999]*

- **Writing should have purpose, meaning, and an audience.**
  *[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998; National Research Council, 1999]*

- **Reading and writing are inseparable processes.**
  *[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; National Research Council, 1999]*

- **Children learn to read and write by reading and writing many different kinds of text.** *[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998]*

- **Good first teaching is essential for continuing success in reading and writing.**

*[Ministry of Education, 1996; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC) 1998; Bredekamp, S. & Copple, C., (Eds.), 1997; National Research Council, 1999]*

- **Reading, writing, speaking, listening, and thinking develop simultaneously as learners grow into literacy.**
  *[McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC) 1998; National Research Council, 1999]*
- **Speaking and listening are the foundation skills for reading and writing.**
  *[National Center on Education and the Economy, 2001]*
- **A strong basis in a first language promotes school achievement in a second language.**
  *[Neuman, S.B., Copple, C., & Bredekamp, S., (Eds.), 1999]*

# FOUNDATION 1

# READING:

## *Concepts About Print*

***Beginning readers must first recognize that print carries a message or a concept. Young children may begin 'reading' by pointing to the pictures and talking about them. Later, they will begin to put the pictures together to tell a story. Print awareness occurs when a child attempts to attend to the print while 'reading.' Print awareness is a major predictor of a child's future reading achievement and serves as the foundation upon which phonological and conceptual skills are built.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Pretend to read a book by holding the book correctly, looking at the pages and pictures, and turning the pages.
- 'Read' familiar signs and words including the child's name, *McDonald's*, *mom*, and *Stop*.
- Listen with interest to stories read aloud.
- Follow a story on audiotape or CD.
- Notice the difference between print and pictures.

- Discuss pictures in favorite books and talk about what is happening.
- Realize the length of a word in print corresponds to the length of the spoken word (*motorcycle* is longer in print and speech than *cat*).
- Know the names of familiar letters.
- 'Read' his or her own 'writing.'

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides the child with a wide range of books and appropriate printed materials.
- Points out print common in the child's environment: storefronts, trucks, billboards, signs, tags, food, coins, cans, etc.
- Models reading and writing for different purposes.
- Reads to child daily in such a way that the child can examine the pictures, discuss all aspects of meaning, and become aware of the format of print.
- Encourages child to discuss what has been read.
- Reads a book many times and points out repeated words and length of words and their sounds.
- Points out individual letters and names them as the opportunity arises.

## Scenario

### *Building concepts about print*

Yakiko, Laura, and Maria are playing school. Maria is the teacher and is 'reading' a story to Yakiko and Laura. She holds the book up facing the two friends modeling the way the lady at the library does during story time. Maria's mother notices the girls playing school and asks what materials they need. She brings in markers, paper, scissors, tape, and more books. The girls begin to make their own books with the materials provided. Mother notices Laura has difficulty beginning her book and begins asking questions about the story to help Laura organize her ideas. When Laura finishes, she asks the others if they would like to hear her 'read' her story to them.

***Social/Emotional:***

- Demonstrates comfort with self, own skills and abilities.
- Plays and works cooperatively.

***Cognitive:***

- Recognizes the association between spoken and written words.
- Assumes a pretend role in make-believe play.

*Physical:*

- Develops fine motor control using writing and drawing tools.

*Self-help:*

- Gains ability to be self-directed.
- Uses materials purposely.

*Communication/Literacy:*

- Speaks clearly enough to be understood by peers and adults.
- Listens with interest to stories read aloud.
- Shows an interest in reading-related activities.

## *Phonological Awareness*

***Phonological awareness is an "ear" skill. It is the ability to hear and manipulate the sounds of words, recognize that speech is composed of sounds, that some words rhyme, and that sounds can be manipulated. This is a foundation for phonemic awareness. Phonemic awareness is the ability to recognize the smallest units of sounds in words (the word*** **pink** ***begins with the sound /p/).***

***Learning to read requires that children have considerable awareness of the sound structure of spoken language. Few young children acquire phonemic awareness unless teachers and other adults take the opportunity to draw attention to the sounds and phonemes of spoken words.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Recognize that his name begins with the same sound as another child's name or another word.
- Become familiar with the sounds in her name.
- Understand that there are similarities between the way words sound and the way they look (words that look alike may sound alike).
- Learn rhymes and finger plays.
- Play with rhyming words (e.g., make up nonsense words that rhyme).

- Play with sounds of words (e.g., use words starting with the same sounds).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides opportunities for the child to experiment and play with the sounds words make through songs, rhymes, nonsense words, alliterations, and music (e.g., clapping out the syllables of names or words with their cadence).
- When reading familiar rhymes, stops before a rhyming word and encourages the child to fill in the rhyme.
- Provides an environment which includes rhythm instruments, children's music and movement tapes, and a center where children may listen to a variety of story and sound tapes.
- Supports the child's early attempts to write, as a way to focus on the sounds that make up the words.

## Scenario

### *Using names to build phonological awareness*

Mr. Jeffers, the preschool teacher said, "We're going to see who has a name in our class that begins with the same sound as mine, J-J-J-J-J Jeffers. Okay, let's try it out." Mr. Jeffers then says each child's name, one at a time, and then says "Jeffers." The children discuss whether that child's name began with the same sound as "Jeffers" (e.g., "Does Jamal's name begin with the same sound as Jeffers? Put thumb's up if you think Jamal's name begins with the same sound as J-J-J-Jeffers"). Mr. Jeffers continues until he has all the students with the names beginning like Jeffers together. "Now let's say each name to check that they all begin with the same sound." Repeat each name.

The game can continue or be renewed another day with any familiar name, holiday, or word. One child in the group is deaf. An interpreter will use signing to ask if the name begins the same. Classmates will learn to sign the letter "j" along with the interpreter. To correspond with the sign, a printed symbol of "j" will also be presented.

***Social/Emotional:***

- Participates in group activities.

***Cognitive:***

- Learns to identify matching beginning sounds.
- Connects a letter with its beginning sound.

***Physical:***

- Engages in small motor movement.

***Communication/Literacy:***

- Begins to recognize consonant sounds and words beginning with the same sound.

## *Decoding and Word Recognition*

***Decoding and word recognition begin when a child understands that there is a relationship between letters and sounds, and that letters put together form words. Adults have a critical role in discerning when experiences with language and reading prepare a child to enter into another level of literacy development. Adults also create and utilize the "teachable moments" when the child begins to see how letters form words. The most important thing that adults do is observe and listen to the child and provide the experiences needed to move to the next level of decoding skills.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Recognize name in print.
- Recognize that his name begins with same letter and sound as another child's name or word.
- Recognize many familiar signs and labels.
- Use basic visual features (curves and lines) to identify familiar letters.
- Understand the same letter may be written in different styles (in signs, newspaper, children's books).
- Become familiar with some letters and the sounds they make.
- Understand that there are similarities between the way words sound and the way they look (words that look alike may sound alike, e.g., cake, cola).
- Decode a word based on the sounds its letters make. (Late in preschool years, and/or if child has successful experiences with letters and their sounds.)

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Demonstrates the written form of the child's name throughout the environment.
- Draws attention to letters and words and their relationship.
- Reads alphabet books.
- Matches sounds with printed letters, beginning with the letters found in the child's name or other familiar words.
- Encourages the child to figure out the meaning of the print using the repertoire of known letters and cues and challenges him to be a "print detective".
- Helps the child decipher the similarities and differences in letter formation.
- Helps the child explore different styles and ways letters and words are written (e.g., *Sam*, Sam, Sam, Sam ).
- Draws attention to the relationship between words and pictures.
- Demonstrates that letters grouped together make words by pointing to the words as they read or write a story, a label, a letter, and a sign.

## Scenario

## *Decoding and word recognition*

Mrs. Garcia, the preschool teacher, cuts out paper shapes and prints each child's name on the shape each month to help build student's name recognition of their own name, as well as that of their peers. In October, Mrs. Garcia cut out paper ghost shapes for every child in her preschool class. Then she wrote each child's name on a ghost. Each child took a glue stick and traced their name on their ghost. The teaching assistant provided hand-over-hand assistance for the children unable to control the glue stick. Then the children poured colored sand over the glue. This enabled the students to "feel" the shape of each letter and their name as a whole. Each morning the ghosts are spread out on a table. As the children enter the preschool classroom, they locate their ghost and pin it on the board.

***Social/Emotional:***

- Participates in group activities.
- Follows simple rules and directions.

***Cognitive:***

- Follows directions that involve a sequence of actions.
- Copies and traces own name.
- Differentiates between letters.

***Physical:***

- Uses eye-hand coordination to perform fine motor tasks.
- Manipulates tools using fine motor skills (glue stick, glitter).

***Self-help:***

- Learns to recognize name and that of peers; an important step in independence for children.

***Communication/Literacy:***

- Understands that letters are grouped together to form names.
- Understands words have meaning.
- Begins to recognize name in print.
- Begins to differentiate between different names (words).

## *Vocabulary and Concept Development*

***The young child who has experienced both quality and quantity of talking and conversations and has had the opportunity to build an extensive vocabulary, is a child poised for success in early literacy learning. The best preparation in the early years for success in reading is to expose the child to a broad range of experiences and to anticipate, participate, and recall what is experienced with as much verbal and written language as the child is developmentally able to absorb. The more the child enters into the exchange of information around what is seen, heard, and experienced, the better able the child is to acquire the concepts and language that contribute to learning to read.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Identify objects and things in pictures.
- Explore words, their meanings, and sounds.
- Practice using new words.
- Tell and dramatize stories.
- Use new words and concepts in dramatic play/imaginary play scenarios.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Sets aside a regular talk time to have a conversation about the child's life.
- During daily routines, like reading and eating, takes time to talk with the child.
- Watches a TV program with the child and talks with them about it.
- Reinforces and extends the child's vocabulary usage. (e.g., Child: "There's a dog out there." Adult: "You're right, there is a big, black dog in our back yard.")

- Lets the child control the subject of the conversation and encourages efforts to use new words.
- Reads with the child in a way that makes the child become an active participant by asking the child to respond to questions about the story and the pictures.
- Encourages and models verbal interaction with other children and adults. (ELL)
- Talks with the child about trips to libraries, museums, movies, and parks.

## Scenario

## *Developing vocabulary and concepts*

While on a walk through a local park Miguel's grandfather shows him a nest in a small tree. Miguel is curious about what type of bird would live in a nest. His grandfather explains in Spanish that different birds make different types of nests for their eggs. Recognizing the eggs in the nest were robin eggs, the grandfather points out a robin nearby on a limb. He uses the Spanish word for robin along with the English word. As they continue their walk, Miguel notices another bird and says, "Oh look, a robin!" His grandfather realizes the second bird is a cardinal and talks with Miguel about similarities and differences between the two. Recognizing Miguel's interest in birds, his grandfather makes plans to take Miguel to the library for information on common birds.

***Social/Emotional:***
- Interacts easily with familiar adults.
- Bonds with grandfather through conversation and exploration.
- Enjoys and appreciates nature.

***Cognitive:***
- Learns new words and concepts with real life observations and experiences.
- Learns the new words in primary language as well as in English.

***Physical:***
- Moves with balance and control to perform large motor tasks (walking).

***Self-help:***
- Learns the library can be utilized as a resource to find more information about a concept.

***Communication/Literacy:***
- Develops communication abilities through conversation in primary and secondary languages.
- Uses language for a variety of purposes.
- Begins to use information books to learn more about a topic.

# FOUNDATION 2

# READING: Reading Comprehension

# *Structural Features of Informational and Technical Materials*

***In building a foundation for reading and understanding a variety of materials, young children need experiences with language and a variety of reading materials. They need to see adults obtaining and using information from many different printed sources: recipes, manuals, newspapers, Websites, books, encyclopedias, and many others. Young children learn that books and technical materials are a major source of needed and useful information. They also begin to recognize the different formats in which informational materials come.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Understand that books and reading materials have relationships to specific stories or information (expects to hear the same story when listening to the same book, you use a recipe in cooking, etc.).
- Select books and tapes that are related to things they are learning about.
- Use a variety of technical materials to experience stories (e.g., story on tape, computer software).
- Begin to use a library to locate materials of interest to them.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Models finding, organizing, and using information from books and other technical materials.
- Observes the child's interests and supports this through books, audiotapes, videotapes, and other materials.
- Takes the child to the library and introduces the child to how and where materials are located and used.
- Provides books, computers, tapes, and music related to the interests of the child.
- Learns to select software and internet Websites that are appropriate for young children.

## Scenario

### *Building awareness of reading and technical materials*

## *being a source of information*

The children in Miss Foster's four-year old class were attracted to the street-side of the fence surrounding the playground. Their interest was centered on a work crew that was digging a trench and installing new telephone cable. They had many questions and comments about what they saw and what they thought the crew was doing. Miss Foster listened and occasionally interjected some information or asked a "wondering" question. ("I wonder if the cable they are laying is for telephones, or for television, or for electricity?")

When the children returned to their room, Miss Foster pointed out some books that the children had used before to find out how things work and helped them find some pages that talked about telephones. Observing the high level of interest of the children, Miss Foster sought some more information from the library and by getting on the Internet. (In a home or classroom that has a computer with Internet connection, working with the children to retrieve information, even when it is "over their head," will reinforce the idea that there are many ways to learn more about things of interest.) Miss Foster borrows some telephones for the children to use and examine by taking them apart.

***Social/Emotional:***

- Observes and learns with others.
- Explores and finds new information.

***Cognitive:***

- Learns new words and concepts with real life observations and experiences.
- Asks questions to discover more information.

***Self-help:***

- Learns the library and Internet can be utilized as a resource to find more information about a concept.

***Communication/Literacy:***

- Develops communication abilities through conversation.
- Uses language for a variety of purposes.
- Begins to use information books and the Internet to learn more about a topic.

# FOUNDATION 3

# READING: Literacy and Analysis

## *Emergent Literacy with Appropriate Books and Stories*

***Young children need to be exposed to many types of books and stories to help them develop the habit of reading as life-long learning. Children love the intimacy of reading with an adult.***

***Teachers, parents, and caregivers should find time daily to read with every child.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Look at picture books with interest and point to objects in picture.
- Listen to stories for a short period of time.
- Ask people to read stories, signs, or notes.
- Ask questions and make comments about the story being read and relate the events in the book to real-life experiences.
- Identify and talk about some characters in a story.
- Identify the setting of a story.
- Pick up books, hold them conventionally, and look at and turn the pages.
- Picture-read (telling about the story from the pictures on the cover or in the book).
- Follow the print on a page, moving eyes in the correct direction.
- Appear to read or actually read a book, pointing to the words and telling the story.
- Talk about the cover and illustrations prior to the story being read.
- Recall some favorite books.
- Use illustrations to predict what happens in the story.
- Use play or drawings to retell a story.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Reads to and with the child daily.
- Reads and rereads predictable texts to the child.
- Exposes the child to a variety of books by visiting the library, bookstores, or joining a book club.
- Provides many types of reading material, including information books, stories, poetry, alphabet and counting books, and wordless picture books.

- Maintains a comfortable, cozy place where the child can read alone, with the adult, or with a friend.
- While reading with the child, asks questions to help initiate thinking about the plot and characters.
- Provides opportunities for the child to respond to stories in a variety of ways (e.g., acting, talking, dancing, creating a picture).
- Shares many different types of literature with the child and discusses the main parts (characters, setting, etc.).
- Includes non-English books and stories to help support a child whose first language is not English.

# Scenario
## *Supporting emerging literacy skills*

### Story Map

Mrs. Smith introduced the book, *The Three Little Pigs* by Paul Galdone, to her preschool class by doing a picture walk through the book. Mrs. Smith and the children discussed the cover and each illustration in the book, one at a time. As they discussed each illustration, they talked about what they saw in the illustrations and predicted what might happen next. Next, Mrs. Smith read the entire story aloud to the children. Following the story, the children discussed the major parts of the story and worked together to draw a picture to go along with each part of the story. Using shared writing [Mrs. Smith wrote down the children's ideas as they dictated them], Mrs. Smith labeled the pictures of the story parts. Mrs. Smith and the children then arranged the pictures into the story sequence and read their story. The students acted out the story, in sequence, using their pictures as a guide.

***Social/Emotional:***

- Participates in group experiences.
- Recognizes the phenomena of learning from others.

***Cognitive:***

- Identifies the main parts of a story in sequence.
- Develops an understanding that print has meaning.

***Physical:***

- Uses small motor skills to draw pictures.
- Uses gross motor skills in the re-enactment of the story.

***Communication/Literacy:***

- Begins to understand story structure.
- Retells information from a story.
- Communicates ideas verbally to others.
- Guesses what will happen next in a story using pictures as a guide.

# FOUNDATION 4

# WRITING: Writing Process

## *Organization and Focus*

***Various components of literacy, including writing, develop early in life in an interrelated manner. Children who see themselves as readers and writers engage in a variety of literacy-related behaviors. Early attempts and approximations at standard writing (often viewed as "just scribbles" by adults) are legitimate elements of literacy development. Children's acquisition of writing typically follows general developmental stages, and individual children will become writers at different rates and through a variety of activities. Learning to write involves much more than learning to form alphabet letters. It involves understanding:***

- ***The level of speech alphabet letters represent.***
- ***The ways in which print is organized on a page.***
- ***The purposes for which writing is used.***
- ***The various conventions associated with various purposes.***
- ***That the writer must think about the reader's reaction to the writing. (Schickedanz, 1999)***

***Access to writing materials and adults who give encouragement and positive feedback are critical to children experimenting with and gaining facility in writing. Early writing experiences foster the development of key aspects of literacy such as print awareness, functions of print, and phonological awareness in young children.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Understand that thoughts can be written down.
- Understand that print holds meaning.
- Draw pictures and write (scribble) to generate and express ideas.
- Experiment with a variety of writing tools including pencils, crayons, markers, pens, and computers.
- Exhibit basic writing conventions such as writing left to right and top to bottom, holding the writing tool, and positioning the paper.
- Use whatever means that are at hand to communicate and make meaning: drawings, scribbles, letter approximations, letter strings, other graphic representations.
- Use known letters or approximations of letters to represent written language (especially meaningful words like their name and phrases such as "I love you").
- Explain orally about their own writing (pictures, scribbling, letter approximations, etc.).
- Listen to others tell about their writing.
- Dictate something for an adult to write down.
- Reenact or retell a story.

- Write without resistance when given the time, place, and materials.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Models and discusses writing conventions: left to right, top to bottom.
- Provides the child with access to a variety of writing materials (alphabet blocks, magnetic letters, pencils, crayons, chalk, paint, rubber stamps).
- Provides daily opportunities for children to "write" at their developmental level.
- Provides a literacy-rich environment that creates a purpose for writing. (Materials include: books, posters, charts, displays of student writing.)
- Models the printed word read aloud through shared book experiences.
- Exposes the child to a wide selection of children's literature through multiple daily read-alouds.
- Models the writing process through adult-led **language experience** (adult records the child's exact words).
- Models the writing process through **shared writing** (adult acts as a scribe, but more emphasis is placed on the composing process and constructing a text the children can read later).
- Models the writing process through **interactive writing** (children actively compose together, considering appropriate words, phrases, organization of text, and layout. At points selected by the adult, individual children take over or "share the pen" ).
- Prompts the child to talk about their writing (picture(s), scribbling, letter approximations, etc.).
- Asks the child to read their own writing and writes the message in conventional print.
- Prompts the child to "tell me more" to encourage extensions of the child's original writing.
- Integrates writing throughout the day.
- Encourages children to plan and review their writing and to represent what they know verbally, pictorially, and through other modes and media.
- Engages children in discussion and representation activities (such as dictating, writing, or modeling in clay).
- Uses observational assessment of child's progress and examines the child's "work" samples to guide future focused support.

## Scenario
## *Integrating oral language, writing, and reading*

The children in Mrs. Lewis's family child care home are very excited today. The Lewis's cat has new kittens. Mrs. Lewis allows the children to observe the kittens (without touching them because they are so new). After a short time with the kittens, Mrs. Lewis continues chatting with the children about this special event, about what they saw, and their reflections on it. Noting that their interest is high, she suggests that they write down this special event for their "big book". On a large piece of lined newsprint, she writes "Tabby Has a New Family", and asks the children to tell her what the story should say. As the children suggest information, she writes it down, using their language as much as possible.

One child in the group has limited oral language. Mrs. Lewis models 'cat' and asks the child to repeat the word. The word is then put into a sentence by another child. When the suggestions dwindle, Mrs. Lewis reads the story back to them and asks for any changes or additions. Then she adds the page to their Big Book as the children drift into other activities. Sarah and Jonah linger to watch, and Mrs. Lewis asks them if they would like to make some pictures to go with the story and/or make their own picture and story to take home.

***Social/Emotional:***

- Experiences a real life situation and relates it to own family and life experiences.

***Cognitive:***

- Integrates and/or reinforces the concepts of oral and written language.

***Physical:***

- Uses writing and drawing tools with increasing control and intention.

***Self-help:***

- Learns that new, young life is fragile and needs protection.

***Language/Literacy:***

- Learns that thoughts, observations, and feelings can be set down in a written record that can be read and re-read.
- Realizes that the written word remains the same.
- Recognizes print has meaning.

# FOUNDATION 5

# WRITING: Writing Application

## *Different Types of Writing and Their Characteristics*

***Young children extend their acquisition of literacy into writing much as they did learning to talk: by seeing it used by the adults and older children in their lives and by using, initially, rudimentary forms of writing. Children need to experience the writing of oral language into symbols and the decoding of written language into speech in many different contexts and for many different purposes. They also need to see themselves and others engaging in this process in ordinary daily activities. Adults need accept their early attempts as valid expressions.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Use writing for a variety of purposes such as grocery lists, messages, and captions for pictures.
- Make signs for block constructions.
- Label drawings.
- Use writing to name or label objects and places.
- Scribble or draw his name or a message on a card or picture.
- Use writing to tell someone what to do (e.g., give directions, send messages).
- Recognize print in the local environment.
- Understand that different text forms are used for different functions of print (e.g., a list for groceries is different than a list on a menu).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Writes daily for specific purposes (lists, letters, messages) and discusses purposes with the child.
- Provides opportunities for the child to put his/her thoughts on paper by writing the words the child dictates to them.
- Transcribes the child's words and takes the opportunity to demonstrate ordinary conventions like: top to bottom; left to write; spaces between words; upper and lower case letters.
- Writes, displays, and points out the child's name often.
- Labels some of the important things in the child's universe.
- Uses observational assessment of children's progress and examination of children's writing to guide future activities.

## Scenario

### *Supporting the use of different types of writing*

Ricardo, Gwen, and Carlos are playing at the housekeeping center. Ricardo and Carlos are both English language learners. They pretend the housekeeping center is a fast food restaurant which includes: a written poster menu with accompanying labels in Spanish and English, pictures of each food choice along with the cost, pads of paper and pencils on which to write down food orders, play money, and play food. Ricardo is the customer, and he looks at the menu. He then tells his order to Gwen in Spanish and points to each picture as he does. Gwen writes down Ricardo's order on an order pad and walks over to Carlos, the cook at the restaurant. Gwen reads Ricardo's order to Carlos. Carlos gives the ordered food to Gwen. Gwen then gives the food to Ricardo and repeats the order as she does. Ricardo uses his play money to pay for the food.

***Social/Emotional:***
- Engages in conversation through their dramatic play.
- Role-plays an everyday social situation.

***Cognitive:***
- Uses money for exchange.

***Physical:***
- Engages in a series of physical actions through dramatic play.
- Uses small motor skills.

***Self-help:***
- Describes some people's jobs and what is required to perform the job.
- Uses money as a form of exchange.
- Recognizes primary and secondary languages are a means of communication.

***Communication/Literacy:***
- Uses language for a purpose.
- Recognizes print has meaning.
- Begins writing for a purpose.

## *Handwriting and Spelling*

***By using a knowledge of letter names and sounds and unconventional (invented) spellings, young children develop an impressive appreciation of the phonemic structure of the English language. Children gain confidence in their growing ability to translate their communication into writing if the adults in their environment are more interested in what they are trying to say, than on their use of conventional letter formation and/or spellings. Observation may reveal that the child is actually representing what she hears adults saying. Children who are learning English or who have language delays need to have their early attempts accepted and encouraged. It is better to build confidence than correctness at this stage of writing.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Imitate adult writing by scribbling from left to right.
- Make letter-like forms.
- Write strings of letters.
- Change from stringing letters together randomly to incorporating whole letter names into their spellings: yl (while), ppl (people).
- Experiment with different combinations of letters to achieve a sound, often in the same writing sample.
- Write a few words correctly such as mom, his/her name, love.
- Practice the correct grasp of writing tools.
- Write left to right using some conventional letter forms and some conventional spellings.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides many activities that foster the development of fine motor skills and strength such as finger plays, use of tools, play dough, scissors, stringing beads, lacing and manipulation of small items.
- Provides letters for the child to see, feel, and copy.
- Explores letter/sound associations with the child.
- Gives the child opportunities to use environmental print to copy when writing lists or notes.
- Gives the child opportunities to write for real purpose and explore using invented spelling.

### Scenario

### *Handwriting and spelling*

Yasmina is drawing a picture of herself coming to school with her father this morning. Her teacher observes her activity and suggests she might want to add a story. As Yasmina writes her story, her teacher observes that while most of her writing is at the scribble stage, she is using a more conventional left to right motion and that the writing is formed in several horizontal lines. Several recognizable letters are emerging. Yasmina's teacher determines that she should encourage Yasmina to engage in activities and materials that help children compare letters and their formations like alphabet books, games, and puzzles, along with encouraging her to write daily. The teacher will plan writing activities in which letter formation can be demonstrated and practiced.

***Social/Emotional:***

- Reflects on being together with an adult.
- Expresses the events and/or feelings of coming, parting, and being at school.
- Feels competent to engage tasks.

***Cognitive:***

- Reproduces the picture in her memory into a two-dimensional representation.
- Uses correct direction while writing.

***Physical:***

- Uses eye-hand coordination and fine-motor development to draw and write.

***Self-help:***

- Realizes that union and separation and anticipated reunion are a normal part of human interactions.

***Communication/Literacy:***

- Uses drawing and writing to express a meaningful experience.
- Demonstrates beginning movement out of initial stages of writing.

# FOUNDATION 6

# LISTENING AND SPEAKING:

## Listening and Speaking Skills, Strategies, and Applications

### *Comprehension*

***Young children need the environment filled with rich language and many opportunities to hear language being used for different purposes. Talking makes children familiar with words and ideas that they need to enjoy and understand fiction and nonfiction books, including math, science, history, art, and other academic subjects that they will encounter later.***

### YOU MAY SEE THE CHILD BEGIN TO:

- ➢ Listen more attentively to words, stories, and events and begin asking questions for clarification.

- Ask questions using why, who, what, when, where, and how.
- Understand and follow a one-step direction.
- Watch and listen to a performance or story for ten or more minutes.
- Ask questions about a story indicating attentiveness.
- Try 5 to 10 new words a day.
- Learn how words connect with their understanding of the world (e.g., a *dog* is an *animal* and a *mammal).*
- Express an opinion (e.g., *"I like. . ." "I don't like. . .").*
- Use the concepts of size, quantity, speed, time.
- See relations between objects (e.g., sort objects using like attributes).
- Understand cause and effect (e.g., *"The blocks fell when the big block was put on top."*).
- Make simple predictions.
- Express feelings.
- Use connecting words.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Makes time every day to stop and listen to the child without interruptions.
- Talks to the child in the way the child should be learning to speak.
- Talks with the child using language in a naturalistic, real-life context.
- Uses story telling to encourage the use of new and interesting words.
- Provides a wide variety of materials for the child to hold, touch, play with, and manipulate.
- Have topics to talk about (e.g., toys, books, blocks, dress-up clothing, art supplies, puppets).
- Encourages the child to share ideas and experiences to expand understanding.
- Asks many open-ended questions.
- Answers the child's questions concerning words and meanings.
- Engages the child in conversations about real experiences and events and responds to the child's verbal cues.
- Provides supportive opportunities for the child to learn "school talk."

# Scenario
## *Developing comprehension*

Mrs. Smith made arrangements for a rabbit to visit the class for a few days. The children talk about the rabbit's features: color, shape of the ears and eyes, size of the feet, softness of the fur, etc. The class asks questions about what a rabbit can and cannot eat and where it sleeps. The teacher encourages the discussion and helps the children discover answers and information through books and computer searches, introduces and clarifies the meanings of new words, and encourages the use of new vocabulary. To care for the rabbit, the children learn to follow directions concerning cleaning and feeding.

***Social/Emotional:***

- Works with others to learn and exchange information.
- Uses inquiry techniques to discover and use new concepts and vocabulary.

***Cognitive:***

- Increases vocabulary and appropriate usage of words.
- Uses information for a practical purpose: care of the rabbit.

***Physical:***

- Uses sensory abilities.
- Adjusts touch and handling to the needs of the animal.

***Self-help:***

- Learns that animals need special food and balanced diets just as they do.

***Communication/Literacy:***

- Uses computer literacy, with adult support as needed, in finding more information about a topic.

## *Oral Communication*

***Young children use words to help adults and others to understand their needs, ask questions, express feelings, and solve problems. Children learn a lot when they talk out loud. In building a foundation for speaking for a variety of purposes, young children need many opportunities to formulate language rules and communicate their ideas to adults and children. Adults who care about the child's self-esteem and development of oral communication, respond to information, questions, or requests with respect, interest, and eye-contact.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Practice and play with words and language; use nonsense words, silly rhymes, and phrases and jokes.

- Practice using new and interesting words correctly when talking with others.
- Use spoken language for a variety of purposes and to express ideas, feelings, and needs.
- Expand vocabulary with approximately ten new words a day.
- Notice when familiar words do not sound right and may attempt to correct.
- Resolve conflicts with peers using language instead of physical force.
- Respond to other people who ask for clarification.
- Learn the rules of speaking, such as taking turns.
- Repeat, revise, and improve upon what was said.
- Ask questions to seek information about topics of interest, stay on topic, and may extend the topic.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides an environment that is familiar, comfortable, and stimulating.
- Introduces a variety of rhymes, silly verses, chants, and songs.
- Talks with the child and listens to the child frequently, encouraging sharing experiences and ideas.
- Encourages the use of words with other children and with adults to express ideas, desires, feelings, and to resolve conflicts.
- Provides opportunities for dramatic play.
- Records the child in a variety of speaking situations and allows the child to hear how he actually sounds.
- Provides opportunities for the child to interact and communicate with other children.
- Engages the child in many varied activities and experiences.
- Exposes the child to new concepts and words.
- Continually listens and responds to the child in order to assess language use, fluency, complexity, and imaginativeness.

## Scenario
## *Supporting Verbal Communication*

Mr. Gomez has a group of children at a wide variety of developmental stages in his Head Start class, including several who speak Spanish at home. He seeks to support literacy development in all learning activities that arise throughout the day. Here are a few that are observed:

Using different voices and words for different situations: Role playing with some children about eating in a restaurant: What type of voice would we use? Pretending to be outside playing with your best friend: What type of voice could we use?

Learning new words from regular, repeated practice like reading a story about an *insect.* Drawing attention to the word *insect* and explaining its meaning with gestures and pictures. Giving the children an opportunity to look at insects outdoors, drawing the insects found, and "writing" a story using the word *insect.*

Using a song, such as *"Heads, Shoulders, Knees, and Toes,"* to integrate movement and body parts. The children learn the names of all parts of the body and also move while touching the parts named in the song.

Planning many opportunities for the children to share a personal story or talk about a topic of interest.

***Social/Emotional:***

- Experiences acceptance of self.
- Interacts in appropriate ways.
- Communicates with others in different contexts.

***Cognitive:***

- Integrates information gained from visual, auditory, physical, and tactile experiences.

***Physical:***

- Experiences use and labeling of body parts.
- Engages in many gross motor and fine motor activities.

***Self-help:***

- Shows self-direction by choosing activities.

***Communication/Literacy:***

- Extends vocabulary.
- Uses language in a variety of ways.

## *Speaking Applications*

***Young children need an environment filled with rich language and many opportunities to hear language being used for different purposes.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Understand and follow a one-step direction.

- Practice using new and interesting words correctly when talking with others.
- Listen more attentively to words, stories, and events and begin asking questions for clarification.
- Understand and follow directions with more than one step.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Talks with the child using language in a naturalistic, real-life context.
- Uses story telling to encourage the use of new and interesting words.
- Encourages the child to share his/her ideas and experiences and expand their understanding by asking many open-ended questions.
- Responds to the child's language explorations as if intending to mean something and provides feedback to clarify meaning (e.g., "Mommy come home?" answer: "Yes, mommy is coming home").
- Answers the child's questions concerning words and meanings.
- Engages the child in conversations about real experiences and events and responds to the child's verbal cues.
- Provides supportive opportunities for the child to learn "school talk."

## Scenario
## *Supporting Speaking Applications*

As part of the getting-ready-for-bed ritual, Leah's mother tells a story about her. "Once upon a time there was a little girl named Leah who got up early to get ready to go to her grandmother's house. She knew her Grandma would have many things for her to do that day. Leah and her mother started to drive to Grandma's house, but it began to rain. But finally Leah got to Grandma's house, and they had a very nice day together. And then Leah came home and ate her supper and went to bed. The end."

***Social/Emotional:***
- Experiences a warm, caring relationship with parent.
- Hopes, fears, happenings legitimized by hearing them in a story.

***Cognitive:***
- Exercises ability to remember and order meaningful events.

***Physical:***
- Patterns routines to make the transition from active play to quiet.

***Self-help:***
- Learns to accept rituals as signals of the transition from active to quiet, and social to personal.

***Communication/Literacy:***

- Distinguishes between events of her life and the language in stories and books.
- Recognizes correct and appropriate words for events and objects.

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Children's Television Workshop: www.ctw.org

High-quality books in Spanish recommended: www.csusm.edu/campus_centers/csb

International Reading Association: www.reading.org

Internet Public Library Youth Division: www.ipl.org/youth/

National Association for the Education of Young Children: www.naeyc.org

National Institute for Literacy: www.nifl.gov

National Zoo from Smithsonian Institute: www.si.edu/natzoo/

Reading is Fundamental: www.si.edu/rif

# MATHEMATICS

## *FOUNDATIONS FOR MATHEMATICS*

Preschool children are curious, independent, energetic, and eager to learn new things. This makes them excellent candidates for acquiring math concepts that will form a working foundation for more formal math learning in kindergarten and primary grades. Nowhere is it more true to say children learn by experience and discovery than in their acquiring math concepts. Adults have many opportunities to use naturally occurring events to stimulate curiosity and problem solving in order for children to begin to make the critical connection between living and learning. Adults also influence the child's attitude and self-concept with regard to math processes.

Math concepts that are appropriate for preschoolers to begin working with are: numbers, volume, capacity, length, area, shape, space, time, and size. Much of the work will be discovering relationships through matching and comparing, filling and emptying, and measuring and manipulating. There are many opportunities (teachable moments) for adults to ask questions or make comments (e.g., "I wonder what would happen if…"). The most important learning in early years is the vocabulary that develops as a result of these adult-to-child and child-to-child interactions.

## *GUIDING PRINCIPLES*

- **Mathematics is a developmental process that follows a sequence of awareness, exploration, creating, and gaining meaning.**
  *[Copley, J.V., 2000]*

- **Children move through this sequence at different rates because of individual differences, exposure to tools, hands-on materials, and experiences.**
  *[Bredekamp, S. & Copple C., (Eds.), 1992; Kamii, Constance, 2000; Copley, J.V., 2000]*

- **Preschool children can solve simple problems and love to do so. Children learn best when they find answers for themselves and in their own way.**
  *[Fromboluti, C. & Rinck, N., 1999]*

- **It's not just the activities that children do that help them learn, but the questions the child asks and the things the adult points out that get children thinking mathematically.**
  *[Fromboluti, C. & Rinck, N., 1999]*

# FOUNDATION 1
# NUMBER SENSE:

## *Number Relationships*

***Children learn the meaning of numbers in the every day experiences the adult provides in the home, classroom, and nature. The child needs opportunities to watch, play, and interact with adults and other children to learn number vocabulary and to discover number relationships. Developing number sense means more than merely counting. It involves the ability to think and work with numbers easily, to understand their uses, and describe their relationships.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Use the names for numbers.
- Demonstrate number sense using number collections or sets of objects.
- Understand that numbers always represent the same quantity, regardless of the order or physical arrangement of the objects counted.
- Use concepts of first and last.
- Count series of objects in a group and tell the number (e.g., show me 5 beads).
- Have knowledge of quantity and some of the comparisons of quantity (e.g., all, some, none, fewer, more, less).
- Progress from inventive to accurate counting and recognizing and matching number symbols with the appropriate amounts.
- Use numbers to predict and make realistic guesses.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Counts real things to help the child use personal experiences with objects to better understand numbers.

- Provides daily opportunities for the child to count and recount objects as opportunities naturally arise, points to the object, and recites each number name while counting.
- Provides objects with naturally occurring numbers and number words such as clocks, timers, calendars, thermometers, computers, calculators, measuring cups.
- Uses number words and numerals, including zero, in meaningful everyday activities.
- Points out that counting lets the child know how many things are in a group.
- Uses a variety of strategies (e.g., questions, comments, counting) to prompt children to think about quantity and number words.
- Talks to the child about a variety of uses of numbers (e.g., keeping score in a game, finding an apartment, street address, or phone number).
- Provides opportunities for the child to guess the amount or size of something. Very young children will not be able to estimate accurately, because they are learning the concepts. They first need to understand concepts like more, less, bigger and smaller, first and last.
- Helps the child understand concepts like more, less, bigger, smaller, first, and last.
- Provides opportunities for the child to count and share things.
- Provides opportunities for 4- and 5-year olds to play board games to learn math concepts (e.g., counting, planning ahead, thinking, finding patterns, and understanding how much).

## Scenario
## *Using names for numbers and counting*

Mrs. Lee leads the children in playing a rhyming game, "Ants on a Log." Mrs. Lee says, "Three (or number based on ages of children) Little Ants Come Out to Play on a Sunny Day." The children dramatize being the ants and being the log with groups of children. Because the children enjoy rhymes, they repeat the game with two ants and one ant. Mrs. Lee labels a paper "Ants on a Log" for each child and asks the children to make a representation of what they played. Mrs. Lee observes that Jimmy seems hesitant to use the crayons and paper. She talks to him about what he wants to draw and suggests some ideas for getting started.

For snack time, Mrs. Lee and the children make "Ants on a Log". Each child selects 1 stalk of celery, 2 spoons of peanut butter, and the number of raisins based on the age of the child. Mrs. Lee demonstrates the activity and assists the children in selecting the food by modeling and counting with them. The children make and eat their snacks. Mrs. Lee and the children talk about healthy snack foods.

***Social/Emotional:***

- Supports group activity.
- Practices paying attention and taking turns.
- Provides opportunity for dramatization.
- Encourages rhyming activities which children enjoy.

***Cognitive:***

- Learns number sense through measuring, counting, and comparing bigger and smaller.

***Physical:***

- Uses large and small muscles.

***Self-help:***

- Gains knowledge of snack foods that are healthy, and healthy food helps them grow.

***Communication/Literacy:***

- Promotes communication by sharing with others a representation of what was done.

# FOUNDATION 2

# COMPUTATION:

## *Counting, Sorting, Classifying, and Comparing Objects*

***Learning to model, explain, and use addition and subtraction concepts in problem solving situations begins with the opportunity for young children to count, sort, compare objects, and describe their thinking and observations in everyday situations. In building the foundation for computation, children need opportunities to observe adults and peers applying mathematical concepts and using problem-solving techniques. Including these concepts in their play and in adult-supported activities, enhances children's understanding.***

## YOU MAY SEE THE CHILD BEGIN TO:

- ➢ Experience one-to-one correspondence (e.g., 5 cups for 5 people at the table).
- ➢ Understand the concepts of same, equal, one more, or less than.
- ➢ Explore the use and meaning of currency and coins.
- ➢ Attach meaning to visual and verbal uses of numbers (e.g., counts on fingers).,

- Count objects, sort, organize, and compare groups of objects.
- Develop estimation skills related to quantity.
- Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols.
- Seek help from peers or adults in solving a problem.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides a variety of objects that work together in a 1:1 relationship (e.g., markers with caps, cars with garages, containers with lids).
- Asks the child to pass out utensils, napkins, and cups for snack/meal time.
- Engages in conversations with the child about quantity and comparisons as the child interacts with materials throughout the day.
- Provides a variety of materials that may be used for adding and subtracting.
- Poses questions which ask the child to make guesses or predictions (e.g., "How many do you think you have?").
- Provides planned opportunities for the child to predict in naturally occurring activities (e.g., guessing how many days before garden seeds sprout).
- Provides opportunities for child to practice forming numerals with many different mediums (e.g., trace numerals in shaving cream, sand, salt; create numerals with rolled clay, pipe cleaners, craft sticks).
- Provides opportunities for child to write numerals with different materials (e.g., chalk, crayons, pencil).
- Provides opportunities to integrate science and math (e.g., "What kind of sand do you think can make a bigger pile, wet or dry? What did you find out?").
- Offers praise and encouragement that is focused on the activity in which the child is engaged (e.g., "That's a nice boat you have drawn. Where is it going?" rather than "You're so good at drawing").

## Scenario

### *Counting, sorting, and comparing objects*

Mary operates an early care and education program in her home. Mary puts some colored blocks around the room in varying amounts (example: 4 red, 3 blue, 3 yellow, 2 green). She plays music while each child finds one block. When the music stops, the children gather in a circle. Mary calls out one color and asks all of the children who have that color to form a group. Billy goes to the wrong group, and Sean helps him find the right group. All of the children are grouped according to their colors. Mary asks children to count the number of children with blocks in their group. Then she asks, "Which group has more blocks, which group has less, and which groups have the same amount?" Billy thinks they are all the same. Mary has the groups line up one to one to show one more, one less, and the same.

***Social/Emotional:***

- Provides a group experience.
- Provides opportunity to follow directions.

***Cognitive:***

- Develops sorting and comparing skills (e.g., more than, less than, and same).

***Physical:***

- Uses gross control in lining up, moving around the room, and stopping.

***Self-help:***

- Learns to put toys away when finished.

***Communication/Literacy:***

- Learns to act out verbal and nonverbal communication.

# FOUNDATION 3

# ALGEBRA AND FUNCTIONS:

## *Finding Patterns and Relationships*

***Young children build the foundation for finding patterns and their relationships by exploring environments that are rich in shapes, sizes, colors, and textures. They learn to identify and describe patterns using mathematical language when there are opportunities to sort, classify, and label things in their environment. Children need hands-on activities to explore and describe patterns and relationships involving numbers, shapes, data, and graphs in problem-solving situations.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Reproduce patterns of sounds and movements (e.g., clap, stomp, clap).
- Recognize simple patterns of concrete objects (e.g., look at beads that are strung yellow, blue, yellow, blue, and identify the pattern).
- Reproduce simple patterns of concrete objects (e.g., string beads that are yellow, blue, yellow, blue).
- Predict what comes next when simple patterns are extended.
- Explore attributes of objects and begin to sort by similar traits such as shape, color, size, or function.
- Recognize objects arranged in a series and begin to place objects in order through trial and error.
- Describe sequence of events and objects.
- Recognize charts and graphs as a way of collecting, organizing, recording, and describing information.
- Understand and explain what a graph shows.
- Identify shapes (e.g., square, rectangle, triangle, circle, diamond).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Supplies a variety of materials for sorting and classifying: shells, keys, cereal, pebbles, bottle caps, nuts and bolts.
- Provides items such as plates or egg cartons for the child to use in grouping objects that are sorted by attributes.
- Encourages the child to create, identify, match, and describe patterns in objects, designs, pictures, movement activities, and recurring events.
- Helps child create and recognize patterns in his/her environment (e.g., room, clothing).
- Provides opportunities for the child to create own patterns for others to follow or extend using prompts and no-prompts.
- Encourages child to verbally describe why he/she sorted, classified, and ordered objects in a certain way.
- Uses words that describe attributes and criteria of items in the child's environment.
- Builds on the child's understanding of a series by making changes and additions in materials (e.g., varying the number of objects, types of characteristics, degree of variation).
- Helps the child recognize and describe sequences in nature, daily routines, and in stories.
- Assists child in identifying shapes in the environment.

## Scenario
## *Recognizing and reproducing a simple pattern*

Emma and her mother plant flowers in the spring. They have red and white petunias. Emma digs a little hole for a petunia and decides to plant the red petunia. She begins to pick up another red petunia, but her mother suggests the white goes next. After planting a white petunia, Emma sees the pattern and says, "Now we put a red one in. Red, white, red!"

***Social/Emotional:***
- Interacts with adult.
- Experiences cooperation.
- Promotes self-esteem by doing grown-up things.

***Cognitive:***
- Reproduces simple pattern.
- Develops ability to follow directions.
- Practices doing things in sequential order.

***Physical:***
- Uses large and small muscles.

***Self-help:***
- Learns good hygiene such as hand washing to remove dirt, cleans tools.

***Communication/Literacy:***
- Develops communication skills through conversation.

# FOUNDATION 4
# GEOMETRY:

## *Recognizing Common Geometric Shapes and Using Directional Words*

***In building the foundation for recognizing shapes and using directional words, children need opportunities to explore the size, shape, position, and movement of objects within their***

***physical environment. Spatial reasoning (describing the position, direction, and distance of objects in relation to the child) begins as children become aware of their bodies and personal space within their physical environment. Children learn to recognize, draw, and describe shapes by manipulating, playing with, tracing, and making common shapes using real objects in a variety of activities.***

## YOU MAY SEE THE CHILD BEGIN TO:

- See space and size relationships (e.g., putting puzzles together).
- Recognize, describe, and name shapes (e.g., circles, triangles, rectangles, squares).
- Use words that indicate where things are in space (e.g., beside, inside, behind, above, below, here, there, in, out, over, under, next to, near, far).
- Explore geometric shapes.
- Notice differences and begin to identify, describe, model, draw, and classify geometric shapes.
- Recognize geometric shapes in the environment.
- Build maps of surroundings using blocks, boxes, and other materials.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Encourages the child to explore materials and environment through movement and hands-on experiences.
- Enables the child to have a wide variety of gross motor movement in open spaces both indoors and outdoors (e.g., walking, crawling, skipping, hopping, jumping).
- Provides materials in a variety of shapes and sizes to create and represent shapes (e.g., paper, pipe cleaners, play dough, scissors, tape, wood).
- Provides a variety of geometric materials (e.g., unit blocks, parquetry blocks, stencils).
- Uses and encourages the child to use language and physical gestures to demonstrate directional words with people and things in the environment.
- Names and calls attention to shapes naturally apparent in the environment.

- Encourages child to create representations of shapes by constructing models through drawing, block building, or other mediums.

- Provides space and hands-on materials for creating landscapes (e.g., train tracks, houses, roadways).

## Scenario

## *Recognizing geometric shapes and using directional words*

A theme about shapes emerged at ABC Preschool. The children used play dough to roll out circle, square, and triangle shapes. Mrs. Jackson placed three boxes around the room, each labeled with a different shape. The children put their matching shapes in the box. After all the children placed their shapes in the boxes, Mrs. Jackson asked the children to put the shapes in and out, over and under, beside and behind, or above and below the boxes. Grace did not understand the concepts of above and below as explained by Mrs. Jackson. Mrs. Jackson showed Sue a picture card of a child putting a hat on the shelf above the coat in the closet. She also demonstrated putting the triangle above the box with the other triangles and then below the box.

The children also played a game to find "hidden" circles, squares, and triangles that are turned different ways or have odd shapes. The children drew circles, squares, and triangles with their fingers. They traced over them with their fingers and drew the shapes on paper. During snack time, the children cut their peanut butter sandwiches into different shapes with circle, triangle, and square cookie cutters.

During circle time, the children identified items in the room shaped like circles, squares, and triangles. Jim has a visual impairment. In order to help him identify shapes, Mrs. Jackson had stencils of circles, squares, and triangles available for him. She used glue to outline geometric shapes for tracing and coloring.

***Social /Emotional:***

- Learns to take turns.
- Practices self-direction in use of materials.
- Interacts with other children.

***Cognitive:***

- Uses materials for investigation.
- Organizes and classifies objects.
- Learns spatial concepts and shapes.

***Physical:***

- Freedom to move about.
- Rolls out play dough.
- Stops and starts.
- Motor control and balance.

***Self-help:***

- Picks up and cleans up with others.

***Communication/Literacy:***

- Uses vocabulary that indicates understanding of spatial concepts and shapes.

# FOUNDATION 5
# MEASUREMENT:

## *Time and Measurement Relationships*

***Children need many opportunities to explore and discover measurement and apply the results to real life situations in order to construct concepts of measurement. As children begin to use actual measurement instruments and explore measurement relationships, they develop a sense of measurement.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Estimate quantity, distance, weight, and length of familiar objects (e.g., temperature of room, weight of a gallon of milk).
- Use familiar objects as measuring devices (e.g., finger width, arms length, foot length).
- Use appropriate language to discuss activity (e.g., will use hot or cold when speaking about temperature related to weather, or heavy and light to describe weight).
- Recognize time as a sequence of events that relate to daily life (e.g., in the morning, after snack).
- Become aware of and use the conventional language of measurement (e.g., inch, mile, hour, degrees, cup, gallon).
- Show an increasing awareness of conventional measurement tools and methods.
- Realize some activities take longer than others.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides a variety of measuring tools and time-related instruments (e.g., rulers, measuring tapes, measuring cups and spoons, clocks, scales).
- Includes charts and posters with measurement language.

- Provides opportunities for the child to experiment with measuring (e.g., sand and water table, snack time, art projects).

- Introduces general concepts of time (e.g., yesterday, today, tomorrow; morning-afternoon-evening) before discussing specific concepts like hours and minutes.

- Talks about measurement concepts during every day activities (e.g., "It's hot in here today." "Your cup is almost full." "Will this container be big enough to hold the blocks?").

- Encourages the child to practice measuring with non-standard or arbitrary units of measure (e.g., hands, paper clips, blocks, feet).

- Talks about general concepts of time using clocks and calendars (e.g., mark off days on monthly calendars until child's birthday).

- Talks about time and sequence during daily activities (e.g., wake-up, eat breakfast, brush teeth, get dressed).

## Scenario

## *Making estimates and using measuring tools*

It was a warm, sunny day outside. Mrs. Jones seized a teachable moment and took the children outside to talk about shadows. After they played and chased their shadows, Mrs. Jones called them together to talk about shadows and what causes them. The children discussed whose shadow was the longest shadow, shortest shadow, widest, etc. Carolina did not speak English very well, so Mrs. Jones made sure she used big gestures to demonstrate sizes of shadows. Mrs. Jones also helped her by pointing to objects, repeating phrases and names often. Mrs. Jones had taken a yardstick with her on the trip outside. She showed the children how to measure the shadows with this tool. She also showed them how to make their shadow look different.

On other occasions, Mrs. Jones can play the following games with the children that encourages the development of measurement concepts:

(1) "I am tall, I am small. Guess what I am now?"
(2) "If you have short hair, jump up and down. If you have long hair sit down."
(3) "Children stand back to back and decide who is tallest/shortest, who has longest/shortest arms, and who has longest/shortest fingers." Because Jimmy uses a wheel chair, Mrs. Jones only measures with body parts or ideas that enable him to participate fully along with the other children.

***Social/Emotional:***

- Plays and works cooperatively.

***Cognitive:***

- Develops an awareness of conventional measurement tools and methods and making estimates.

***Physical:***

- Engages in large and small motor activities.

***Self-help:***

- Learns self-direction.

***Communication/Literacy:***

- Extends vocabulary, exchanges information with others.

## Scenario

## *Building concepts of measurement, noting changes, and sequences*

Mary read *The Gingerbread Man* to her son, Jimmy. After reading *The Gingerbread Man*, they make gingerbread cookies. Jimmy assists by measuring, stirring, rolling, cutting, decorating, and eating the cookies. Jimmy experienced some difficultly when rolling the dough. Mary helped him with hand-over-hand assistance so that he could roll out the dough and cut the cookies. Mary asks Jimmy to retell the story of *The Gingerbread Man* before bedtime.

***Social/Emotional:***

- Interacts with adult and promotes self-esteem by doing grown-up things.
- Takes turns and experiences cooperation.
- Practices manners.

***Cognitive:***

- Practices following directions.
- Practices doing activities in sequential order.
- Measures and notes changes.
- Uses senses of smell, touch, taste, and sight.

***Physical:***

- Performs motor skills including rolling, cutting, and decorating cookies.
- Practices eye-hand coordination.

***Self-help:***

- Learns good hygiene such as hand washing, cleaning utensils, and putting them away.
- Assists with cleaning the floor.

***Communication/Literacy:***

- Talks about the story and making cookies.
- Provides opportunity to retell the story.

# FOUNDATION 6

# PROBLEM SOLVING:

## *Ability to Reason, Predict, and Problem Solve Through Exploration*

***When young children have experiences in collecting objects and information, as well as opportunities to organize, describe, and***

***graphically represent these collections, they succeed in building a foundation for collecting and using data and thinking about issues of relationships in problem-solving situations. To build a foundation for solving problems, young children need opportunities to hear, use, and apply relevant vocabulary while formulating questions and possible solutions with others based on their observations and experiences.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Group interesting objects, name or describe groups found in the environment, and label or describe those collections.
- Represent the data in a variety of ways.
- Interpret information presented in graph form; draw and discuss information.
- Develop and use systematic approaches to problem solving by testing new possibilities and finding solutions.
- Look for and give clues.
- Make predictions.
- Describe similarities and differences between objects.
- Explain how groups are made and describe thinking in how groups were made.
- Make guesses related to quantity (e.g., "How many do you think you have?").
- Play with computational tools (e.g., rulers, measuring cups, calculators, abacuses, adding machines, or computers).
- Explore concept of whole, parts, and parts that make a whole (e.g., cutting an apple in half and putting halves into whole-fractions).
- Act out/draw/discuss data in a variety of ways.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides opportunities to create and share groupings from a variety of materials.
- Provides collections which are already displayed.
- Provides opportunities to discuss the attributes of a collection using appropriate language.
- Represents data using symbols, graphs, and charts (e.g., the number of children wearing red).

- Uses graphs and charts to organize and interpret information and to show relationships (e.g., types of shoes that tie, buckle, or use Velcro).
- Encourages child to experiment with many different ways to solve problems.
- Provides computational tools where they would naturally be used (e.g., calculators near writing material and blocks, adding machines in the office).
- Models correct language when talking with child about quantity (e.g., part, pieces, whole, half, quarter).
- Provides a variety of shapes and materials that may be broken into parts and brought back together again (e.g., pizza, crackers, unit blocks, puzzles).
- Helps the child understand that many problems can be solved in more than one way.

## Scenario

## *Resolving conflict through problem solving*

Mrs. Jones's class of 3 and 4 year olds were engaged in many activities around the room. Mrs. Jones circulated through the room observing and facilitating learning with the children. Sara was in the block corner building a house for her favorite doll. All of a sudden from the block corner came Sara's loud voice, "Timmy stop that!" Timmy had knocked down Sara's house. Mrs. Jones wandered over to the block corner to find Sara in tears. Timmy stood by looking at the damage that he had caused. While Sara's tears were flowing she said to Timmy, "Why did you do that? I was building a house for my doll." Timmy said, "I want those blocks to build a fire station for my big red truck." Mrs. Jones facilitated conversation between Sara and Timmy on alternatives that Timmy could have used instead of knocking down the house. The three of them talked through this situation, and the two children came up with the solution of dividing the blocks between them in order that Sara could build her house and Timmy could also build his fire station. After the two had settled their differences, they sat down together and Sara built her house and Timmy a fire station for his fire truck. **Note: Sara and Timmy came up with the solution to their problem. Mrs. Jones only facilitated their conversation by asking questions, not solving their problem.**

Sometimes a child may need a physical prompt rather than verbal prompt to assist the child to enter discussion rather than acting out feelings with another child. For example, if Timmy continues to act out feelings rather than discuss a conflict, Mrs. Jones could establish a physical (concrete) reminder. Use of a foam ball could represent "use your own words" so when Mrs. Jones sees Timmy ready to use body language rather than words, she rolls the ball to Timmy as a reminder to use his own words. Foam balls are in the room so when Timmy is rolled one, the other children do not know Timmy is getting extra prompting.

***Social/Emotional:***

- Solves differences in a peaceful manner.

***Cognitive:***

- Learns to solve problems in more than one way.

***Physical:***

- Uses fine motor control to build with blocks.

***Self-help:***

- Resolves a conflict in a way that is satisfactory to both parties.

***Communication/Literacy:***

- Develops communication abilities through conversation.

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# SCIENCE

## *FOUNDATIONS FOR SCIENCE*

Young children are natural scientists. In planning for science experiences, we are not introducing new activities to children; we are merely defining a process they began at birth: making sense out of their world with the intellectual processes currently available to them. During this process of discovery, young children can form misconceptions about their world. Through multi-sensory, firsthand, spontaneous, and repeated experiences that involve both appropriate materials and processes, any misconceptions will be clarified and revised. "These capacities of observation and prediction are the foundation of scientific inquiry." (*Eager to Learn: Educating Our Preschoolers*. National Research Council. 2001. National Academy Press).

As a result of such science experiences, children:

- Build confidence in themselves and in their environment.
- Gain necessary, firsthand experiences.
- Develop basic concepts.
- Increase observation skills.
- Receive opportunities to use tools, equipment, and familiar materials.
- Receive aid in problem solving.
- Stimulate their curiosity for exploration and discovery while increasing their basic knowledge.
- Develop sensory, physical, emotional, intellectual, and social attributes.
- Develop language through increased vocabulary and an opportunity to ask and answer questions.

The young child is now on the way to becoming an active, enthusiastic, and self-directed learner.

## *GUIDING PRINCIPLES*

- **Everybody can do science and invent things and ideas.**
  *[American Association for the Advancement of Science, 1993]*
- **Learning science is something children do, not something that is done to them.**
  *[National Research Council, 1996]*
- **Children should develop an understanding of what science is, what science is not, what science can and cannot do, and how science contributes to culture.**
  *[National Research Council, 1996]*

- **Children's learning reflects a recurring cycle that begins in awareness and moves to exploration, to inquiry, and finally to utilization.**
  *[National Research Council, 2000]*

- **"If children are to understand science, they must be permitted to abstract knowledge on their own, or at least be permitted to verify for themselves much of the information they are given."**
  *[Schickedanz, Judith A., York, Mary E., and White, Doris, 1977]*

- **Our world is a museum, a field trip, a laboratory, and a natural resource, just waiting to be discovered, explored, and enjoyed.**
  *[Taylor, Barbara J., 1991]*

# FOUNDATION 1

# THE NATURE OF SCIENCE:

## *Scientific Inquiry And Process*

***Young children are natural scientists. When provided with opportunities to observe and investigate, they will ask questions and comment about their observations and discoveries. Parents, teachers, and caregivers who answer their questions and arouse their interest and curiosity about the world around them sow the seeds for these future scientists.***

## YOU MAY SEE A CHILD BEGIN TO:

- Choose an area with science materials as a place to work.
- Interact with and explore a variety of objects, books, and materials.
- Develop a growing ability to ask questions and describe information.
- Observe and describe properties of objects.
- Make selections from the science objects and materials available.
- Use the five senses (touching, smelling, seeing, hearing, tasting) to investigate the environment and to gather information.
- Use a variety of "scientific tools" (e.g., balance scales, magnifying glasses, measuring cups, food coloring) to investigate the environment and to gather information.

- Participate in science experiences utilizing age appropriate scientific equipment (e.g., magnifying glasses, thermometer, scales).
- Engage in a scientific experiment with a peer or with small groups of children using sharing/turn taking skills.
- Ask and answer questions about his world.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides opportunities in and out of the classroom for children to explore objects and materials.
- Encourages and supports opportunities for children to plan and select science-related activities.
- Provides a variety of materials and objects for the child to explore and ask questions about.
- Extends the child's thinking and learning by posing problems, making suggestions, responding to and encouraging the child's questions, and adding complexity to tasks.
- Extends the child's learning by allowing the child to make predictions.
- Extends the child's learning by providing assistance and information.
- Encourages the child to document discoveries through a variety of ways (e.g., drawings, photos, discussions, graphing).
- Offers the child a variety of materials/objects to touch, smell, hear, see, and taste.
- Considers the child's developmental level and background knowledge when choosing activities and materials.
- Supports the child's beginning friendships by providing opportunities for the child to learn and explore with peers and adults.
- Sets up and assists the child in doing simple science experiments (e.g., mixing colors, cooking).
- Uses language associated with science (e.g., hypothesis, prediction, conclusion, experiment, science, investigation).

## Scenario

### *Water Droplet Trails*

Susan, Juan, and Mrs. Hunt are watching the rain hit the windows. They are talking about the water droplets getting longer and moving downward. The children say it looks like little worms moving around. Mrs. Hunt says to them, "Let's go and have some fun with water droplets just like the rain drops." Mrs. Hunt and the children draw with a permanent marker two circles smaller than a dime on each side of a plastic or styrofoam plate. Using the permanent marker, they then draw a straight, wavy, jagged, or curved line to connect the circles. Susan, Juan, and Mrs. Hunt fill one of the circles with water from an eyedropper. By carefully tilting the plate, they move the water droplet along the line to the circle on the other side. Juan discovers that if he dries off the plate, he can do it again or he can trade his plate with his other friends.

** For children who have limited fine motor skills, a larger eye-dropper could be used, or a small sponge with a little water could be used. If the child is unable to perform either of these fine motor tasks, a peer buddy can be assigned to work with the child and squeeze the water from the dropper or the sponge.

***Social/Emotional:***

- Demonstrates interest and participates in classroom activities.
- Seeks out children and adults.
- Works cooperatively and accepts responsibility.
- Helps others in need and respects the rights of others.
- Shares materials.

***Cognitive:***

- Demonstrates an interest in exploring.
- Observes and makes discoveries.
- Follows simple directions.
- Uses creativity and imagination.
- Identifies names of objects.
- Increases vocabulary.
- Makes comparisons.
- Increases awareness of cause-and-effect relationships.
- Identifies relationships of objects in space.
- Shows curiosity and desire to learn.

***Physical:***

- Coordinates eye and hand movements.
- Uses small muscles to complete tasks.
- Demonstrates visual discrimination skills.

***Self-help:***

- Uses planning skills.
- Accepts responsibility for helping to maintain the environment.
- Demonstrates increasing independence.

***Communication/Literacy:***

- Uses words to describe the characteristics of objects.
- Participates in group discussions.
- Asks and responds to questions.
- Uses words to explain ideas and feelings.

***Extension:***

- Predict how many water droplets will stay on a penny before the water spills over the side and then test the prediction.

# FOUNDATION 2

# SCIENTIFIC THINKING:

## *Computation And Estimation*

***Meaningful science learning experiences help young children investigate those pre-existing ideas, such as shapes and patterns, while building a foundation for additional knowledge. These science learning experiences also provide opportunities for children to classify or sequence objects by an attribute (characteristic) and to develop an understanding of numbers.***

## YOU MAY SEE A CHILD BEGIN TO:

- Participate in activities related to number sequencing and counting.
- Manipulate a variety of objects and tell about what is observed (e.g., more than, less than, equal to/same).
- Classify objects by different attributes (characteristics).
- Apply previously learned information to new situations.
- Show a curiosity and independent interest in number related activities.
- Use familiar materials to measure things (e.g., popsicle sticks, unifix cubes, paper clips, crayons, hand).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Discusses with the child the schedule for the day using language such as before/after.
- Organizes the environment to support and encourage counting/sorting.
- Assists the child in counting the number of boys and girls in the classroom or in other areas.
- Utilizes mathematical language whenever possible, specifying the number of objects being needed or discussed.

- Counts with the child while moving to music or while using body rhythms (e.g., clapping and stomping).
- Provides materials that encourage the child to create symmetrical patterns (e.g., wooden blocks, colored shapes, pattern blocks, tangrams).
- Provides familiar materials to measure things (e.g., popsicle sticks, paper clips, crayons, unifix cubes, hands).
- Assists the child in recording observations and results of scientific investigations.

## Scenario
## *Measuring, Mixing, and Baking*

Each day after school, Tom goes with Nikki to her house. Today, Nikki's mother has promised them that they can make cookies to take to school the next day. The children are excited. Nikki's mom has the recipe, the bowls, the measuring cups and spoons, all the necessary ingredients, and the cookie sheets on the kitchen table. Together, they read the recipe and begin measuring and mixing. As they add ingredients, they discuss how much is a half, a teaspoon, a tablespoon, etc. Nikki and Tom each get a turn with the task of measuring, mixing, and adding ingredients. Nikki's mom assists Tom by supporting his arm as he measures and adds. Because of his cerebral palsy, Tom needs support to aid his ability to pour and to mix. Nikki's mom is sensitive and aware of the fact that Tom needs to be as independent as possible. She lends the support when asked or when she observes it to be necessary. While the cookies are baking, Nikki's mom reads a story with the children (*Cookie's Week*, 1997). After the cookies are out of the oven and cooled, the children count the number of cookies. Nikki's mom helps them compare the number of cookies they have to the number in their class by matching a cookie to a paper cup. (There are 11 paper cups, one for each child in the class plus the teacher.)

***Social/Emotional:***

- Interacts/talks with other children.
- Demonstrates confidence in one's growing ability.
- Demonstrates increasing independence.
- Understands and respects differences.
- Demonstrate trust in adults.

***Cognitive:***

- Classifies objects by similarities and differences.
- Identifies names of objects; increases vocabulary.
- Persists with task.
- Follows simple directions.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Listens to a story and explains what happens.
- Counts in correct sequence and matches one-to-one.
- Makes comparisons.
- Increases awareness of cause-and-effect relationships.

***Physical:***

- Coordinates eye and hand movements.
- Uses small muscles for self-help skills and to complete tasks.
- Demonstrates visual discrimination.
- Discriminates differences in texture.

***Self-help:***

- Uses planning skills.
- Accepts responsibility for maintaining the environment.
- Demonstrates increasing independence.

***Communication/Literacy:***

- Articipates in group discussions.
- Shares a story
- Uses words to explain ideas and feelings.
- Asks and responds to questions.

## *Shapes And Symbolic Relationships*

***A fundamental skill for science endeavors is the ability to observe and reproduce patterns and shapes. Children are attracted to patterns and shapes from early months of life. This innate interest can be utilized to build a good foundation of observation, comparison, and discrimination skills that will enable the child to be a better scientist.***

### YOU MAY SEE A CHILD BEGIN TO:

- Recognize and talk about the fact that everything has a shape.
- Observe shapes and look for objects that are the same shape.
- Recognize, copy, extend, and create patterns with objects and in drawings.
- Participate in activities using materials with a variety of shapes and patterns.

### A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Repeats a sound pattern during musical activities.
- Creates simple visual patterns using children (e.g., boy-girl, stand-sit).

- Provides materials such as blocks or art supplies so that the child can create patterns.
- Has the child recreate patterns using lacing beads, colored pasta, peg boards, poker chips, or other manipulatives.
- Asks the child to look for patterns in and out of the classroom or on clothing.
- Asks the child to look for and name shapes within and outside the classroom.
- Provides opportunities for the child to create own patterns for others to follow and/or extend patterns by using leaves, rocks, nuts, etc.

## Scenario

## *Discovering "tools" of science*

Marcus excitedly enters his family child care home on Thursday morning with a magnifying glass his grandfather gave him. Marcus shows it to Mr. Gill and tells him how it works. Mr. Gill asks Marcus if he knows that this is a "tool" for science. Marcus says he wants to share it with his friends. Mr. Gill and Marcus decide together that discovery time would be the best time to share and show what a magnifying glass is for. Mr. Gill tells Marcus that he will put out other science "tools" for all to see and use and asks Marcus to help him collect them. They get plastic tweezers, balance scales, hand lenses, measuring cups, measuring spoons, and plastic containers filled with rocks, blocks, cotton balls, flower seeds, wood, etc. Also available are books and writing materials for the children. As Mr. Gill observes this experience, he encourages and supports the children contributing "science tools" to this area.

***Social/Emotional:***

- Demonstrates confidence in one's growing ability.
- Demonstrates interest and participates in activities.
- Seeks out children and adults.
- Helps others in need.
- Works cooperatively with others on completing a task.
- Shares materials.
- Respects the rights of others.

***Cognitive:***

- Demonstrates an interest in exploring.
- Finds one more solution to a problem.
- Uses creativity and imagination.
- Identifies names of objects.
- Makes believe with objects.
- Shows curiosity and a desire to learn.
- Makes comparisons.
- Increases awareness of cause-and-effect relationships.
- Demonstrates an interest in writing for a meaning.
- Increases vocabulary.

***Physical:***

- Coordinates eye and hand movements.
- Demonstrates visual discrimination skills.
- Uses small muscles to complete tasks.

***Self-help:***

- Chooses the activity.
- Uses planning skills.
- Accepts responsibility for getting out and putting away.

***Communication/Literacy:***

- Makes increasingly representational drawings.
- Listens to a story and explains what happened.
- Demonstrates skill in discriminating sounds.
- Uses words to explain ideas and feelings.
- Asks and responds to questions.

### On-going experiences for discovery:

Have available wooden blocks; nuts and bolts; colored shapes; pattern blocks; colored popsicle sticks, etc. These items encourage children to sort, classify, and make patterns. Having them accessible for all the children will encourage the child to independently make a choice and to complete a task.

Make people patterns during transition periods (e.g., boy-girl, stand-sit, long sleeve-short sleeve, tie shoes-not tied shoes). Can also do rhythm patterns (e.g., snap, clap, snap).

# FOUNDATION 3

# ENVIRONMENTS:

## *The Physical Setting*

***As natural scientists, young children need multi-sensory opportunities to learn about their environments. Having the opportunities and the time for free exploration of a variety of materials and objects as well as teacher guided explorations, young children can acquire scientific knowledge related to physical science.***

## YOU MAY SEE A CHILD BEGIN TO:

- Participate in activities using materials with a variety of properties (e.g., color, shape, size, name, type of material).
- Investigate and talk about the characteristics of matter (e.g., liquids and solids, smooth and rough, bend-not bend).

- Actively explore simple machines (e.g., pulleys, levers, wheels).
- Investigate the physical surroundings by digging in dirt, collecting and classifying rocks, recognizing changes in weather.
- Gain a natural sense of the forces of nature by experiencing wind blowing, temperature changes, changing seasons of the year, or things falling.
- Understand that not all physical environments are the same.
- Understand that their environment expands beyond the earth and begin to ask questions and/or make comments about the sun, stars, planets, and clouds.
- Be aware of the fact that the physical environment affects the living environment and visa versa.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Exposes the child to the concept of balance using blocks, teeter-totter, balance scales, etc.
- Makes available for the child a variety of materials and tools to explore (e.g., wood working tools, magnifying glasses, hand lenses, clocks, pulleys, wind-up toys, springs, magnets).
- Provides an area for science exploration with a variety of available materials (e.g., boards and boxes, levers, wheels and axles, pendulums, and pulleys).
- Provides science-related activities and materials in both the inside and the outside classroom environment.
- Involves the child in experiences with changes of matter (e.g., cooking, mixing things together, dissolving things in liquids).
- Provides a variety of objects for the child to sort, classify, and/or match.
- Allows the child opportunities to predict and the time to test the predictions.
- Integrates science into other areas and activities in the classroom (e.g., math, reading, writing, art, music, movement).
- Uses the language and terms associated with physical science (e.g., fulcrum, force, weight, balance, gravity).

## Scenario

### *Hidden Creatures*

During a field trip to the pumpkin patch, Rico and Shelia find the pumpkins they want. Lifting up her pumpkin, Shelia discovers a bug crawling under the pumpkin. Rico and Shelia begin looking for other creatures on the ground. They ask Mrs. Cooper if she has a shovel so they can dig for more creatures. Mrs. Cooper assures them that when they return to the child care center, Shelia and Rico may go out in the back yard and dig in the garden.

Back at the child care center, Rico and Shelia use a trowel to collect topsoil from the garden, and they put the soil in a dishpan. Mrs. Cooper shows them how to use the trowel to move the soil around in the dishpan. She asks the children if they can see any hidden creatures. Mrs. Cooper reminds Rico and Shelia that creatures can be big or small. They keep looking and picking through the soil.

In time, Mrs. Cooper returns with a sieve and a sheet of white paper. Curiously, Shelia and Rico ask Mrs. Cooper what she has. She tells them it is a sieve and asks them if they know what people do with a sieve. After discussing uses, she shows them how to put some soil in the sieve and shake it over the white paper. What do they see? What else could they use to help them see small creatures she asks? Discover how many different creatures there are by using a magnifying glass. Shelia and Rico can record what creatures have been found (draw/make a graph). The children will discover earth worms, bugs, etc.

As adults interact with the children, the adult might ask, What have you discovered? Are there small pieces of dirt and sand? Are there some living and non-living things? How does the dirt (soil) feel? What would you find if you dig soil from a different area of the yard? Is the digging hard work? Did you find anything that does not belong in nature? Sometimes questions will need to be rephrased and repeated for the English language learner (ELL).

***Extension:***
- Compares the soil gathered from the garden or somewhere outside to soil purchased from a store.
- Discusses living and non-living things by charting thoughts.

***Social/Emotional:***
- Demonstrates interest and participates in available activities.
- Demonstrates increasing independence.
- Demonstrates trust in adults.

***Cognitive:***
- Observes and makes discoveries.
- Makes comparisons.
- Shows curiosity and desire to learn.
- Identifies names of objects.
- Counts/records findings.
- Demonstrates an interest in exploring.
- Increases vocabulary.

***Physical:***
- Coordinates eye and hand movements.
- Moves around (e.g., walking, digging).
- Shares materials and works cooperatively.

***Self-help:***
- Uses planning skills.
- Demonstrates an increasing awareness of independence.
- Accepts responsibility for maintaining the environment.

***Communication/Literacy:***
- Communicates with peers and adults.
- Takes pictures/records findings.

***It will not surprise most people that children in the pre-school years are eager to learn more about their living environment. Animals and plants are some of the first things very young children recognize and show an interest in.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Observe and explore a variety of live plants and animals.
- Take care of familiar plants and animals.
- Identify plants and animals as living things.
- Identify non-living things.
- Sort things by attribute or characteristic.
- Use characteristics of living things to make finer discriminations (e.g., Donkeys have shorter legs and longer ears than horses. A tulip looks like just a cup, but a daffodil looks like a cup and saucer.).
- Talk about different types of plants and animals that inhabit the earth.
- Participate in activities related to preserving their environment.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides opportunities for the child to observe and interact with live animals and plants (e.g., field trips such as farm, zoo, veterinarian's office, nursery, science museum).
- Provides (if no allergies) plants and animals for children to observe including non-toxic houseplants.
- Provides art materials and art experiences to reinforce and support concepts.
- Makes available materials necessary to record findings (e.g., paper, markers, clip boards).
- Assists the child in creating schedules for the care of live animals/plants.
- Plans nature walks to observe, to listen, and to collect.
- Guides the child's observations with questions and comments in order to help the child make connections with what is observed.

## Scenario

# *What will the wind blow?*

On a neighborhood walk, several children begin to notice the trees swaying, branches blowing. "Why?" asks Miss Kim. "Why is the stop sign not blowing like the branches of the trees?" As the children and their teacher continue to walk, the discussion continues to focus on the things that are blowing and not blowing.

Back inside, Miss Kim gathers a variety of familiar objects and materials such as a cotton ball, a piece of paper, a rock, a tissue, a block, etc. and a piece of chart paper. On the chart paper the adult writes this question, ***What can I move by blowing through a straw?*** On the left side of the paper the adult lists (or attaches a sample of) the selected items and adds two columns, one with a "yes" and one with a "no". The adult and the children look at the items and predict if blowing through the straw will or will not move the object. What happens when you blow? What is it that makes the object move? Will all the objects move by blowing?

Make the chart and objects available to the children so that while they play and interact, they can choose to test their predictions and to record their findings. The children can be encouraged by the adult to find additional items to test. Throughout all discussions use such language as air, blow, movement, wind, etc.

** For children who have a visual impairment, place the object that is to be blown in the child's hand and allow them to feel it. Describe for the child what it is and ask them to guess whether the object will move when it is blown. Then place the child's hand a short distance from the object and blow on the object. If the object can be moved by 'air' it will move in the child's hand, allowing the child to answer the question. Also, the charting could be done with the actual objects so that a child with limited vision could feel the objects that were blown verses the objects that were not.

***Extension:***

- Measure the distance the object moved when blown.
- Compare the distance of various objects.
- Have materials available to use for measuring such as tape measure, ruler, blocks, paper clips, crayons, unifix cubes, etc.

***Social/Emotional:***

- Shares materials.
- Works cooperatively.
- Demonstrates trust in adults.
- Demonstrates interests and participates in activities.

***Cognitive:***

- Asks and responds to questions.
- Observes and makes discoveries.
- Applies information and experience to a new context.
- Recalls a sequence of events.
- Makes comparisons.
- Discriminates differences in texture.
- Shows curiosity and desire to learn.
- Increases vocabulary.

***Physical:***

- Coordinates eye and hand movements.
- Uses small muscles to complete tasks.
- Uses gross motor skills.

***Self-help:***

- Uses planning skills.
- Accepts responsibility for maintaining environment.

***Communication/Literacy:***

- Uses words to explain ideas and feelings.
- Draws/writes about findings.
- Listens to a story.
- Makes up stories.
- Talks with others.
- Recalls words in a song or finger play.

# FOUNDATION 4
# COMMUNICATION:

## *Sharing Observations and Discoveries*

***As young children explore their world through materials and activities, they need opportunities to share their findings with others through discussions, charts, drawings, computer products, and/or self published books.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Use vocabulary that indicates his understanding of scientific principles (e.g., sink, float, melt, solid, liquid).
- Identify attributes or characteristics for comparison (e.g., color, size, gender, shape).
- Classify objects by an attribute (characteristic) and share their thinking with another.
- Participate in discussions related to their findings.
- Use charts, drawings, and/or graphs to share their findings with others.
- Use their findings to create self published books and/or materials.
- Dictate statements/draw pictures to share findings.

# A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Compares with the child similarities and differences in two stories or between two children or two objects.
- Guides the child as he verbally tells about observations using words such as melt, float, liquid, solid, etc.
- Assists the child as he describes his discoveries and/or records his observations or findings through drawings, charts, graphs, etc.
- Provides a variety of objects and opportunities for comparing and sequencing.
- Provides materials needed for the sharing of findings (e.g., paper, glue, scissors, markers, camera, blank books).

## Scenario

## *Sinking and Floating*

After reading Ann Jonas' book, "Splash", the adult begins a discussion about what in the pond would sink and what would float. As a group they predict why and chart all the responses.

Later that day or the next day, each child is given a card with the word and a picture clue of float on one side of the index card and sink on the other. Using a water table or any clear plastic tub, the adult shows the children an object and asks the children to predict. "Will this object sink or float?" The child then shows the word that matches his prediction. The adult then puts the object into the water. "What happened?" "Why?" The adult continues to predict and test several objects (use items such as a grape, a watermelon, orange, a rock, a penny).

Later, during work/play time, the water table or tub with a variety of objects/materials is available for the children to predict and test. Children can also be encouraged to contribute objects found in the room and to test their predictions about these found objects.

** In a classroom setting, using the water table, cooking experience, and adding materials to the block area will show children that science occurs in other areas of the room besides just the science area.

***Social/Emotional:***
- Shares materials.
- Takes turns.
- Works cooperatively.

***Cognitive:***
- Observes and makes discoveries.
- Makes comparisons and predictions.
- Records findings.
- Identifies names of objects.
- Applies information and experience to a new context.
- Increases awareness of cause-and-effect relationships.
- Uses words to describe characteristics.
- Increases vocabulary.

***Physical:***
- Coordinates eye and hand movements.
- Uses small muscles to complete task.

- Uses gross (large) muscles for walking, stooping, bending, etc.

***Self-help:***
- Uses planning skills.
- Completes task with minimal adult assistance.
- Cleans-up area when task completed.

***Communication/Literacy:***
- Draws/writes findings (representational drawings).
- Talks with others about findings.
- Uses words to explain ideas.
- Looks at/talks about related books/pictures.

## Scenario
## *From Mud to Dwelling*

Following the reading of *The Three Little Pigs*, the children and the adults take a walk through the neighborhood to look at houses. An adult facilitates conversations by asking, "What was used to build these houses?" "Any made of straw?" Following the walk, the adult brings to the group of children a variety of materials for them to touch, smell, and see such as wood, plastic, straw, bricks, rocks. The adult begins the discussion by asking questions about building houses with these materials. "How would you build a house?" "What material would you use and why?" "Could we live in a paper house?" The adult then shares with the children that anyone who chooses can build a house using bricks that we will make.

**Recipe for brick making:** In a clear, plastic tub or in a water table, the children mix water with soil until it is the consistency of pancake batter. At this point dried grass or straw is added. The straw should be cut into small pieces. As the children are mixing, talk about the role the water takes on as the mixing agent. Some words to use include: solid; liquid; mix; mixture; grass; and straw. Discussion can refer back to the house the third pig built. "What was it made out of?" "How do you think he made the bricks?" "Could we make bricks with this mixture?" "What else would we need?"

Spoon the mixture into the milk cartons and press the mixture down so that it is flat on the top. Place the bricks in the sun to dry or near a sunny window. This will take several days. Each day the children can observe their brick and record what is happening. Keep asking the "why?" questions. Chart and/or graph what is occurring. "Where is the moisture going?" Use words such as evaporation, adobe, construct, and build. When the bricks are dry, use them to build a simple structure using mud as mortar. Let the structure dry thoroughly before using.

**Materials needed**:
pint milk cartons trimmed to one inch high
dirt (best with a clay base)
dried straw or grass from the yard
water
a large tub for mixing

***Social/Emotional:***
- Interacts with others.

- Works cooperatively.
- Feels proud of one's accomplishments.
- Demonstrates interest in activity.

***Cognitive:***
- Increases vocabulary.
- Follows simple directions.
- Makes comparisons.
- Observes differences in textures.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Uses words to describe the characteristics.
- Increases awareness of cause-and-effect relationships.

***Physical:***
- Uses small and gross (large) motor skills to complete task.
- Uses drawing/writing tools with increasing control.

***Self-Help:***
- Uses planning skills.
- Works with minimal adult assistance.
- Accepts responsibility for maintaining environment.

***Communication/Literacy:***
- Asks and responds to questions.
- Makes increasingly representational drawings.
- Participates in group discussions.
- Listens and responds to the story.

*** Connect this activity with a designated block area. The final structure can be built there.

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Indiana Reading List: http://ideanet.doe.state.in.us/standards/readinglist.html

Eisenhower National Clearing House: http://www.enc.org

Exploratorium: http://www.exploratorium.edu

EdHelper: http://www.edhelper.com/cat246.htm

Ask ERIC: http://ericir.syr.edu/cgi-bin/lessons.cgi/Science

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National Parent Information Network: www.npin.org

National Association for the Education of Young Children: www.naeyc.org

# SOCIAL STUDIES

## FOUNDATIONS FOR SOCIAL STUDIES

Social studies is the study of people and cultures. It looks at how people live today and in the past, work, get along with others, solve problems, and affect and are affected by their environment. Early childhood social studies is a combination of curriculum and instruction that takes into account self-development and appropriate practices, citizenship and democratic principles, and key understandings of the social sciences: history, geography, government, and economics.

Young children learn through their senses and experiences. Between the ages of three and five, the foundations of learning history and social studies are built around the child's personal experiences and understanding of the relationship of self to others. Adults working with young children must first begin by identifying the child's current knowledge and understanding and build on this with first hand experiences.

Young children are beginning to understand how people relate to the Earth, how people change the environment, how weather changes the character of a place, and how one place relates to another through the movement of people, things, and ideas.

Through discussion and experiences with stories and older people, young children begin to gain an understanding of the past. Young children must become aware of personal time (usually between 4 and 7 years of age) before understanding historical time. Time understandings should be a major consideration in how historical topics are introduced to young children.

A young child's social development is an important part of development. Social competence and the willingness to interact competently with others – adults as well as peers – affect a wide range of factors related to learning the basics of one's culture (Katz & McClellan, 1997). The quality of a young child's social competence can be a predictor of later social and academic competence (Pellegrini & Glickman, 1990).

The following sections will assist adults with ideas to help young children learn about their world and their environment – both physical and social. This section of the foundations is divided into the social sciences: history, geography, government, economics, and people in our society. This information will help children lay the foundation for social studies in the elementary grades.

The information and examples are geared for children from 3 to 5 years of age. Please acknowledge that children grow and develop at widely different paces and some adaptations may be needed.

## GUIDING PRINCIPLES

- **The primary purpose of social studies is to help people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.**
  *[National Council for the Social Studies (NCSS), 1992]*

- **Adults who engage children in active investigations, build on what children already know, and address misconceptions, help children develop meaningful historical understanding.**
  *[Barton, 1997; Harris, J.H. & Katz, L. 2001]*

- The skills children acquire as they investigate topics in social studies teach them how to be researchers: to ask questions, to seek information, and to think about what they discover. *[Dodge, D.T., Colker, L. J., & Heroman, C. 2000]*

- Young children learn about social studies firsthand. As members of a family, school, and/or community they have opportunities to live, work, and share with others. *[Dodge, D.T., Colker, L.J., & Heroman, C. 2000]*

- As children study present day and historical topics, they gain understanding of human interdependence and the relationships between people and their environment. *[Jablon, J.R., Marsden, D.B., Meisels, S.J. & Dichtelmiller, M.L. 1994]*

- Children who achieve social competence by the time they are in kindergarten are more likely to succeed academically and socially in later grades. *[Katz, L. & McClellan, D.E. 1997]*

# FOUNDATION 1

# HISTORY:

## *Chronological Thinking and Historical Knowledge*

**Young children are not ready to conceptualize chronological history, as they are just beginning to be aware of time. It is very difficult to understand hours or days. The daily experiences that are recurring, sequential, and part of a regular routine are important for children to begin understanding time. Discussions about daily schedules and what happens first, second, and so on are very important at this stage. Many children show curiosity about things from the past before formal school, and this curiosity can be used to begin the foundation for historical understanding. There is a difference between learning dates and understanding how to order moments in time. Young children should have opportunities to hear and share stories about the past and visuals to help support the development of historical knowledge. These opportunities should include the child's own past as well as the stories and experiences of others. How people dress and what type of tools and technology they use are two clues young children may use to begin to understand history and the past.**

## YOU MAY SEE A CHILD BEGIN TO:

- ➢ Understand sequence by recurring events (e.g., "After I eat lunch, I take a rest.").

- ➢ Connect new experiences to past experiences.

- Construct a sense of time.
- Use terms relative to time sequence (e.g., beginning/ending, before/after, early/late, night/day, first/next/last, morning/afternoon/evening).
- Put pictures in sequential order.
- Show anticipation for regularly scheduled events.
- Describe daily routine (e.g., home and/or school).
- Retell a story or event in sequential order.
- Distinguish between past, present, and future.
- Verbalize the days of the week and names of the months.
- Gauge time using their own vocabulary (e.g., number of 'sleeps' instead of days).
- Recall information about the immediate past.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Talks with the child about what is happening during the day and week.
- Uses the names of the days of the week in context (e.g., "On Monday, we go to the library.").
- Labels events and routines using the words today, tomorrow, next, later, and long ago.
- Provides a routine for the child.
- Asks the child to recall what happened yesterday or last night.
- Uses calendars to talk about what happened in the past and will happen in the future.
- Provides access to clocks, watches, timers, and calendars so the child can model after adults and pretend to measure time.
- Uses the correct terms when talking about time and order (e.g., first/last, before/after).
- Uses the correct terms when talking about clock time (e.g., minutes, seconds, hours).
- Reads stories and discusses what happened in the beginning, middle, and end.

- Answers questions the child may have concerning how people lived in the past.

- Discusses differences in dress, customs, tools, and transportation as may be seen in movies, books, or historical sites.

- Provides many examples of and allows the child an opportunity to manipulate the tools people used in the past.

- Encourages family members to talk with the child about family history and culture.

- Cooks recipes reflecting the families past culture or other cultures.

## Scenario
## *Sally's Book*

As Sally approached her 4th birthday, her mother decided a wonderful gift would be the construction of a "Sally Book." Sally and her mother began collecting artifacts from Sally's life: pictures, cards, favorite toys, examples of Sally's early 'work,' and other things Sally felt were important. Together they began to compile the book. With the help of the book, Sally began to talk about the past and the present and could anticipate the future and what objects she could put in the book.

**Social/Emotional:**

- Identifies oneself as a member of a specific family.
- Shows pride in one's heritage and personal history.

***Cognitive:***

- Awareness of past, present, and future.
- Asks and responds to questions.
- Recalls a sequence of events.
- Demonstrates an interest in exploring.
- Arranges objects in a series.

***Physical:***

- Recognizes how one grows and develops.
- Uses small motor skills to complete a task.
- Coordinates eye and hand movements.

***Communication/Literacy:***

- Gathers artifacts to tell a story.
- Communicates with an adult.
- Learns how to construct a book.

# FOUNDATION 2

# CIVICS AND GOVERNMENT:

## *Foundations and Functions of Government and its Citizens*

***Young children's learning is dependent on their background experiences and what they see and hear. Young children can begin to understand that they are citizens of their school, community, and country and what it means to be a responsible, active citizen. Children should be exposed to symbols of the state and the nation including the flags.***

***Participating in a democracy involves making informed choices. Young children who have many opportunities to make choices in their own lives given alternatives are growing in this important process skill.***

***Understanding the need for and being able to follow rules is an important developmental step for young children. They can be very emphatic about following rules and the reasons why they are important.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Listen and talk about stories that illustrate the concept of being responsible.
- Follow simple directions.
- Handle basic responsibilities related to daily needs.
- Respond positively to options rather than commands.
- Recognize and talk about the importance and reason for rules.
- Understand the consequences of not following rules.
- Participate in games and follow the rules.
- Remind other children about the rules and things children shouldn't do to others and why (one should not bite because it hurts).
- Understand the consequences of behaviors and choices.
- Set own consequences for some behaviors.
- Recognize there may be different rules in different places (e.g., school rules may be different from home).
- Show self-control by following rules in different places.
- Start sharing some objects with others.
- By age four, compromise, share, and take turns.

- By age four, resort to negative behaviors, such as name calling, to handle disputes.
- Show greater ability to control intense feelings (e.g., anger, frustration).
- Recognize different places may have different rules (e.g., school, home, church).
- Recognize the U.S. and state flags.
- Learn the name of the current President and begin to understand his/her role.
- Make choices after considering alternatives.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Develops positive rules with the child for understanding and ownership.
- State rules in a positive manner to promote positive thinking instead of negative thinking (e.g., instead of "No running." say "We use walking feet.").
- Reviews positive rules daily with the child.
- Gives the child options rather than commands.
- Offers easy-to-follow directions.
- Allows time for the child to discuss behavior and consequences.
- Helps the child verbalize thoughts.
- Demonstrates how the child can use words instead of force to obtain something.
- Models sharing.
- Reads and discusses stories, songs, and poems that reinforce cooperation and sharing between peers.
- Provides the child time to interpret and represent experiences through drawing, writing, art, creative movement, pretend play, puppetry, music, stories, and conversation.
- Provides opportunities for the child to make choices.
- Takes photos of the child helping others, caring for her room, or taking care of daily needs and displays them around the room.

## Scenario

## *Integrating Group and Personal Responsibility*

On a beautiful fall day, Katie and Shondra were playing jump rope. Katie and Shondra were turning the rope, and three other girls were in line to jump the rope. Katie decided she was tired of turning the rope, dropped it, and cut in front of the line. Shondra screamed at Katie to pick up the rope because she had said she wanted to turn it. Katie said "No!" and stood with her arms folded and told Emily to pick up the rope. All the girls started yelling at Katie, while Shondra and Emily dropped the rope and left the area. Katie stood alone and was so upset she started to cry.

The adult saw Katie crying and tried to talk to her. Between sobs, Katie told her that Shondra wouldn't let her jump the rope. The adult called Shondra over, and the three sat down to discuss the situation. They talked about the rules, especially the rule about sharing. When it was Katie's turn to talk, she said she was tired of turning the rope and got in line to jump. The adult asked Katie to think about her choice and how she could handle it differently. After Katie thought about it, she decided she could have asked another girl if she wanted to turn the rope. Then she could take her turn in the back of the line. After some thought, Katie apologized to the other girls for her choice.

***Cognitive:***

- Explore and find more than one solution to a problem.
- Apply information and experience to a new context.

***Social/Emotional:***

- Respect the rights and feelings of others.
- Resolve conflicts constructively.

***Physical:***

- Engages in physical activity.
- Uses large motor skills.

***Self-help:***

- Problem solve actions and the situation.

***Communication/Literacy:***

- Uses language for a purpose.
- Recognizes print has meaning and understanding.
- New words become familiar and are understood in context.

# FOUNDATION 3
# GEOGRAPHY:

## *Location (Spatial Awareness)*

***Young children are geographers. They dig in the sand, pour water, watch rain fall, to try to find out about the nature of the world and their place in it. Location tells us exactly where objects are in our world. Young children learn that they relate to other people and physical things. The beginning of an understanding of location is an awareness of their own body and how much space it takes up. By age 2, many children are***

***able to distinguish between near and far and features of their environment. The more opportunities children have to run and move about, the greater their ability to become aware of position and location.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Name body parts and point to the location of each.
- Ask questions about everything the child sees and finds.
- Move in directions on command (e.g., forward, backward, sideways).
- Identify and locate familiar places (e.g., home, store, grandparent's house).
- Recognize that streets have signs and houses have numbers to help identify locations.
- Point and name various rooms in the house from the outside.
- Pretend blocks represent buildings and make signs for the roads and buildings.
- Use a simple map (e.g., diagram of the house, street on which the child lives).
- Make roads for toy trucks and cars.
- Recognize where the child is while traveling in the car.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Allows a lot of opportunities for the child to run about and explore the environment.
- Allows the child to climb, jump, run, roll, to physically experience space.
- Plays simple games such as "Mother May I" and "Simon Says," asking the child to move in various directions: forward, backward, sideways, up and down, and right and left.
- Uses positional words like above and below in a natural way when giving directions to the child.
- Uses words that describe features such as color, size, and shape.
- Points out where objects are in pictures when reading books (e.g., "The doll is on the bed.").
- Uses left and right in connection with real situations. (To make it easier, place a string or bracelet on one of the hands.)
- When traveling, uses directional terms (e.g., "We will turn left at the next street.").

- Uses directional terms north, south, east, and west in natural situations. (The kitchen is sunny in the afternoon because the window faces west.)
- Increases the child's vocabulary by using pictures from books and magazines that associate with different places on the earth.
- Takes the child for walks around the neighborhood and points out signs and landmarks that indicate locations.
- Reads and uses maps and globes.
- Before traveling, shares the trip on the map with the child by pointing out the route and places where they might stop.
- Points out signs that indicate location (e.g., entrance and exit signs, stairs, escalators, elevators).
- Supplies materials such as floor maps, road maps, strips and circles of paper with blocks.

## Scenario
### *Mapping the Playground*

Ted, Dayshawn, and Chuckie begin playing fire fighter rescue in the play area. Ted states that the climbing gym will be the fire house. Chuckie wants the tree toward the back of the area to be the place where the fire is burning. Dayshawn begins to lay out a 'road' from the gym to the tree. The three boys want it to be like streets, so they make stops and turns. By placing a Frisbee on the ground, the boys mark an intersection and know they must stop there and then turn to the direction of the tree (right).

***Social/Emotional:***
- Work cooperatively to find a solution.

***Cognitive:***
- Apply information and concepts in a new context.

***Physical:***
- Gross motor activity with walking and running.

***Communication/Literacy:***
- Discuss how to design the play area.

## *Places and Regions*

***Young learners draw upon immediate personal experiences as a basis for exploring geographic concepts and skills. Every place***

***has its own characteristics and no two are exactly alike. Helping young children learn about the weather, plants, roads, and buildings that make up their neighborhood and city, is the beginning of an awareness of how places differ.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Use words hard/soft, rough/smooth, and water/land when describing surfaces.
- Identify various natural features.
- Learn the name of his city or town.
- Give information about where she lives (e.g., street, telephone number, house description).
- Be aware of common community symbols (e.g., signs, highway and street markers, lights).
- Describe features of familiar places (e.g., buildings, stores).
- Create representations of the surrounding neighborhood and community (e.g., blocks, drawings).
- Talk about how to get from one common place to another.
- Discuss different types and modes of transportation to get from one location to another and why certain vehicles are more suitable.
- Match objects to the location they belong (e.g., bed in the bedroom, tree in the forest).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Takes the child on walks and talks about surfaces children walk upon and asks how if they feel hard or soft.
- Exposes some of the basic natural features of the earth in the child's environment (e.g., river, pond, forest).
- Exposes features of the earth that may be unfamiliar (e.g., desert, volcano, plains).
- Describes characteristics of Earth's features using a variety of vocabulary words.
- Lets the child have many opportunities to explore and experience the natural world.
- Provides the child with many materials and opportunities to draw and 'write' about local trips and experiences.

- Talk about the stores and buildings visited and what is in them.

- Help the child make a simple map of the neighborhood, house, or school.

## Scenario
## *Exploring the Surroundings*

Elisabeth takes a group of children on a field trip to a nearby park. As they walk around the grassy area, the children and the teacher talk about what they see, feel, hear, and wonder. Some of the children ask questions like: "Why are trees tall? Where do birds live? Why are there woodchips on the playground?" Elisabeth encourages these types of questions and uses them as an indicator of interest in an in-depth study on the park. The children are given an opportunity to explore the park. Elisabeth gets out clipboards with paper and pencils. She invites the children to draw what they notice as they explore. Many of the children find a favorite part of the park—playground, pond, soccer field, or grove of trees—to investigate. Elisabeth has crayons available for children to do rubbings of tree bark, the sidewalk, and other textured surfaces. After the children have had time to explore and investigate, they gather up their things and get on the bus to head back to school. Elisabeth stops to pick up a map of the park on their way out.

When the class returns to school, they talk about their experience in the park. Children take time to share what they noticed, what they drew, and ask further questions they have about the park. Elisabeth puts the map on the wall for the group to see. They mark on the map different places they had explored. Elisabeth writes down the discoveries, questions, and information the children share during the discussion. She thinks this might be a good topic for an extended project on the local park, that could lead to a return visit!

***Social/Emotional:***

- Demonstrate confidence in one's growing abilities.
- Demonstrate increasing independence.
- Demonstrate interest and participate in classroom activities.
- Work cooperatively with others in completing a task.

***Cognitive:***

- Demonstrate an interest in exploring.
- Ask and respond to questions.
- Show curiosity and a desire to learn.
- Observe and make discoveries.
- Classify objects by similarities and differences.
- Identify names of objects and events.
- Make comparisons (e.g., more/less, larger/smaller, taller/shorter).
- Identify relationships of objects in space (e.g., below, inside, under).

***Physical:***

- Use writing and drawing tools with increasing control and intention.
- Demonstrate skill in discriminating sounds.
- Demonstrate visual discrimination skills.
- Discriminate differences in texture.

***Language/Literacy:***

- Use words to describe the characteristics of objects (e.g., yesterday, today).
- Use words to explain ideas and feelings.
- Talk with other children during daily activities.
- Participate in group discussions.
- Make increasingly representational drawings.

# *Physical Systems*

***Geography examines where people live, why they live there, and how they use the environment and resources. All people change something about the way they live in order to adapt to their environment. Young children become aware of how people and the earth interact. They begin to understand how the weather and climate affect their lives.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Determine what type of clothing to wear based on the weather.
- Identify seasons by temperature or other characteristics (e.g., snow, leaves changing).
- Discuss negative and positive aspects of areas and why people might want to be there.
- Listen and respond to stories about other areas (e.g., deserts, mountains).
- Draw pictures representing the seasonal changes.
- Recognize people live in different types of homes (e.g., apartments, houses).
- Realize people live in different places for different reasons (e.g., farms, cities, small towns).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Talks about clothing choices with the child based on the weather.
- Takes the child for a walk in different types of weather (e.g., windy, cold, hot, rainy, snowy,) and discusses the experience and how it felt to be outside.
- Discusses how things look in different types of weather (e.g., when the sun is shining, when it is foggy).

- Helps the child explore the seasonal changes and how that impacts the child's life (e.g., clothing, food, experiences).

- Looks at the thermometer with the child and talks about the temperature.

- Watches the weather forecast on TV or the paper with the child.

- Discusses the weather in other locations with the child (e.g., "Remember how warm it was in Florida over Christmas vacation?").

- Talks about the different cloud formations and helps the child predict what clouds tell us about the weather.

- Takes the child to a construction site and discusses what is observed.

- Takes the child to visit a farm and talks about how farmers grow crops and raise livestock.

## Scenario
## *Seasons*

While looking out the classroom window, the class discovered a large maple tree. The class decided to adopt the tree. At the beginning of the year, the class made a large poster and colored what the tree looked like at that time. As the year progressed, the class continued to watch and discuss the tree. As the leaves began to change in autumn, the class added a drawing of the tree to the poster. In winter, the tree was drawn with no leaves. Discussions continued throughout the year as to why the tree would be changing and other changes that were taking place. Books about seasons were read. Calendars were kept. The poster was continued through spring and up until school was finished.

***Social/Emotional:***

- Demonstrates interest and participates in classroom activities.
- Works cooperatively with others on completing a task.

***Cognitive:***

- Identifies the different seasons and various seasonal changes that occur.
- Shows curiosity and a desire to learn.
- Makes and tests predictions.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Recognizes patterns and generalizes to sequence of events.
- Develops an awareness of time concepts.

***Physical:***

- Increases visual discrimination skills.

***Self-help:***

- Recognizes books as a resource for extending or verifying information.

***Communication/Literacy:***

- Uses words to describe the characteristics of objects.

- Participates in group discussion.
- Labels pictures.
- Observes oral language set down in written language.

## *Human Systems*

***Young children begin to first understand the system of the family. Through dramatic play and discussions, children actively explore the roles of family members. They may begin noticing similarities and differences with their family and friends' families.***

### YOU MAY SEE THE CHILD BEGIN TO:

- Pretend to take care of a doll by feeding and other activities.
- Play the role of different family members through dramatic play.
- Discuss members of the family and their roles.
- Draw pictures of their family.
- Ask questions about families.
- Talk about how he is the same and/or different from other children.

### A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides many opportunities for the child to explore family relationships through dramatic play and conversation.
- Helps the child identify and name family members and their relationships and roles.
- Talks about the child's unique qualities and those qualities that make him similar to other children.
- Assists the child in making a family book with pictures and drawings of members.

# Scenario

## *Sam's Mobile*

To help Sam understand all about himself, his mother decided to help him construct a mobile to hang in his room. Together they decided the mobile should contain pictures, drawings, and words that described something about him or something he liked. Using a coat hanger, cardboard, and string, Sam started designing his SamMobile. When he had finished, it contained pictures and drawings of his family, friends, and pets. It contained his favorite food, color, TV show, and place to visit. Sam's dad helped to hang the mobile in Sam's room. Before reading a bedtime story to Sam, one of his parents would talk with Sam about the mobile.

***Social/Emotional:***

- Works with others to complete a task.
- Feels proud of one's heritage and family.

***Cognitive:***

- Recalls words from mobile.
- Identifies the roles people play in a family situation.

***Physical:***

- Uses small motor eye-hand in construction and writing.

***Communication/Literacy:***

- Begins to develop beginning reading skills of recognizing sight words.
- Demonstrates an interest in writing for a purpose.
- Imitates recognizable letters.
- Recognizes his name in print.

## *Environment and Society*

***All people change something about the way they live in order to adapt to their environment. By 4 and 5 years of age, children begin to learn what they can do to adjust and how people change Earth to their own benefit. Young children express interest in things distant and unfamiliar and have concern for the use and abuse of the physical environment.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Recognize things that do/do not belong in the environment (e.g., litter, smoke) and discuss the need for a clean environment.
- Help clean up after doing an activity.
- Help with home and class routines that keep the house/classroom clean.

- Help parents/adults with recycling empty containers at home/school.
- Design posters for recycling and post in the home/school.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Talks with the child about the environment and what people can do to protect it.
- Shows the child examples of clean and safe environments and areas that are not so clean or safe.
- Gives the child responsibility for keeping a room or space clean or tidy.
- Discusses how recycling empty containers and papers helps our environment.
- Gives the child help in sorting recycle items from home/school.
- Guides the child in giving out information to others about recycling and how it helps our environment.
- Discusses with the child how smoking is hazardous to the health of children and adults.

## Scenario

### *Recycling*

Mario and Jimmy were playing at Mario's house. and mother gave them juice in plastic containers and boxed cereal for a treat. When the boys finished their treat, they threw the containers and boxes in the trash. Later mother came into the kitchen and saw the plastic bottles in the trash. She called the boys into the kitchen to discuss recycling used items. The boys began asking questions concerning the need to recycle anything. Mother explained about the environment, how trash can pile up in the earth when dumped, and how some items can contaminate the earth. She explained that recycling items will keep our earth clean and looking nice. She showed the boys the large container in which she collects items and later sets it out for the recycling people to pick up. She went on to explain that many of the items are used to make other items. The boys decided to make a poster to display at their preschool and discuss recycling to their class. Mother and the boys' preschool teacher arranged a future field trip to a recycling company to help the children begin to understand the recycling process.

***Social/Emotional:***

- Works with peers.
- Demonstrates interest and participates in group activity.
- Respects the rights of others.

***Cognitive:***

- Learns and uses new vocabulary words.
- Applies new information and experiences to a new context.
- Shows curiosity and a desire to learn.

***Physical:***

- Expends energy.
- Throws an object in the intended direction.

***Self-help:***

- Learns life long skills.

***Communication/Literacy:***

- Follows simple directions.
- Shows speaking and listening skills with an adult.

# FOUNDATION 4

# ECONOMICS:

## *Economics*

***The concepts from economics that are relevant to young children revolve around how families and communities work together to meet their basic needs and wants. Children have a growing awareness of the role of money in purchasing and the connection between work and money. Adults have a significant role in drawing a child's attention to these processes and clarifying any misconceptions. While the interest and ability to grasp economic concepts varies widely from child to child, some of the following ideas can be introduced in the preschool years.***

***Scarcity-*** ***The condition of not being able to have all the goods and services that we want.***
***Choice-*** ***What someone must make when faced with two or more alternative uses for a resource.***
***Goods-*** ***Objects that can be held or touched that can satisfy people's wants.***
***Services-*** ***Activities that can satisfy people's wants.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Play store or restaurant with play or real money, receipts, credit cards, telephones.
- Role play different types of occupations.
- Talk about what he wants to be when he grows up.
- Recognize that things have to be paid for with money and that sometimes you can't buy what you want because you don't have enough money.
- Be aware that adults work in order to earn enough money to buy the food, clothing, and housing that a family needs.
- Save money for a future purpose.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides materials (e.g., cash registers, wallets, purses, checkbooks, credit cards, receipts) and clothing for dramatic play.
- Uses the names of coins and currency, their real and relative worth, and provides an opportunity for the child to handle and become familiar with coins and currency. Some children will become aware that if you come from or travel in another country, there will be other denominations of money.
- Reads many books about different types of occupations.
- Provides an opportunity for the child to visit many different types of employment arenas. (e.g., police and fire stations, stores, restaurants, banks, businesses, construction sites)
- Takes the child to visit a factory and business where his favorite food, toy, and clothes are made and sold.
- Involves the child in using real currency and coins in everyday situations.
- Allows the child to 'pay' for a purchase.
- Engages with the child as he uses currency and coins in role playing.
- Introduces the purpose of banks (a safe place to keep our money until we need it), checks (a letter to the bank that tells them to give the grocery store $$ from our money), bank machines (way for us to get some of our money out of the bank conveniently).
- Creates opportunity for the child to choose and discusses consequences of choices.

## Scenario

### *Money Saved*

Marie's grandmother is helping her earn money to buy Christmas presents for her family members. She guides Marie in cleaning the pet dishes and putting out new food, washing the fronts of the kitchen cabinets, cleaning the glass in the storm door, and many more chores. Each time a task is completed, Marie and her grandmother put the nickels, dimes, and quarters into a small coffee can with a slotted lid. The sound of the coins hitting the bottom of the can provides lots of auditory reinforcement.

When the holiday approaches, Marie and grandmother count the coins, determine the amount saved, and go to a store with a list of needed gifts. Marie chooses many things she would like to buy, and Grandmother helps her decide what is the best choice for each person on her list. Marie and Grandmother buy things from the list with the money saved.

***Social/Emotional:***

- Develops working relationship with an adult.
- Receives satisfaction from doing something that helps others and/or improves the environment.

***Cognitive:***

- Makes the connection between work and money.
- Develops a relationship between the price of goods and the amount of money available.
- Makes choices.
- Uses planning skills.
- Persists in tasks.

***Physical:***

- Expends energy.
- Uses small and large muscles to complete tasks.

***Self-help:***

- Learns practical skills for future helping tasks.

***Communication/Literacy:***

- Learns the names for coins and their relative worth.
- Understands meanings of new vocabulary words in context.

# FOUNDATION 5

# INDIVIDUALS, SOCIETY, and CULTURE:

## *Cultural Diversity*

***Three and four year olds are still quite egocentric and relate to their own experiences. They begin to notice similarities and differences between themselves and others.***

# YOU MAY SEE THE CHILD BEGIN TO:

- Recognize differences between people of different cultures, backgrounds, and abilities.
- Recognize gender differences.
- Ask questions about physical differences.
- Look at people's skin and explore the differences.
- Notice that some people speak differently than others.
- Realize different families live in different types of housing.
- Think about grandparents and older people and how they look different from children.
- Enjoy poems, stories, and songs about a variety of people and cultures.
- Realize that other children are more alike than different.
- Use interpersonal skills of sharing and taking turns in interactions with others.

# A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Gives the child opportunities to be with many other children to build interpersonal skills (e.g., sharing, taking turns, treating others equally).
- Models caring and kindness for all people.
- Models treating others with respect and fairness.
- Shares stories, songs, and poems about different cultures.
- Discusses with the child physical characteristics and how they can be similar and different (e.g., many people have hair, but different color, length, texture).
- Provides opportunities for discussing the child's physical changes (e.g., creates a height graph and compares sizes).
- Offers play experiences for the child to move and talk with others to establish friendships.
- Provides the child with accurate and compassionate answers to help the child develop a sense of respect for the physical differences of others.
- Provides opportunities for the child to engage in gender non-stereotypic activities.

- Provides art materials, books, photos, and dramatic-play props that celebrate the beauty of diverse cultures.
- Appreciates the values, beliefs, and background experiences the child and the child's family bring.
- Talks about how family members love and support each other.
- Broadens the child's knowledge about children and families in other places and cultures through books, stories, pictures, and videos.

## Scenario
## *Community Helpers*

Eun-sook and her mother are walking to the corner grocery. On the way, they see a police officer helping two children cross the street. Eun-sook's mother makes note of the way in which the officer is helping. She talks with Eun-sook about the importance of people in the community who help each other, and she asks Eun-sook if she can think of any other people who help others in the community. Eun-sook tells her mother about the nurse at her child care center who helps children who get hurt and about the firefighters who came to visit the center the day before.

***Social-Emotional:***

- Understands the importance of caring for others in a community.

***Cognitive:***

- Recalls previous experiences to relate them to a current context.

***Physical:***

- Uses gross motor skills when walking.

***Self-help:***

- Looks and listens before crossing the street.

***Communication/Literacy:***

- Uses language skills to participate in discussion.
- Uses new vocabulary words in context.

## Scenario
## *Construction Project*

The children in Ms. Chapman's preschool class are on their way down the street to view a construction site. Workers at the site are in the process of building a new home. Children take clipboards and paper with them so that they can draw what they see at the site. When the children return to the classroom, Ms. Chapman creates groups of four children to re-create the site they have visited. Each group will choose how they wish to construct the recreation – with clay, recycled materials, drawing, writing a story, etc. Over the next few days, these small groups will work on their recreations, eventually sharing them with the whole class.

***Social-Emotional:***

- Works cooperatively in small groups.
- Shares.

- Takes turns.
- Negotiates.

***Cognitive:***

- Demonstrates interest in writing.
- Follows directions.
- Participates in group work.
- Makes representational drawings.

***Physical:***

- Uses gross motor when walking.
- Uses fine motor while drawing and recreating the site.

***Communication/Literacy:***

- Participates in group discussions.
- Uses words to explain ideas and feelings.
- Talks with other children during activities.

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Eclectic Homeschool Online: www.eho.org/econres

Homeschool Central: www.Eschoolcentral.com

Houghton Mifflin: www.eduplace.com/ss/index.html

ERIC clearinghouse: www.askeric.org/

Mr. Roger's Neighborhood: http://pbskids.org/rogers/R-house/picpic.htm

Investigation site for children and adults from Miami University of Ohio:
http://miavx1.muohio.edu/~Dragonfly/

# PHYSICAL EDUCATION

## *FOUNDATIONS FOR PHYSICAL EDUCATION AND HEALTH*

Early childhood is the time for a child to begin the development of an active, healthy lifestyle. This development of skills, knowledge, and attitudes that lead to such a lifestyle must be taught and should begin early in order to ensure a lifetime of good health.

As never before, attention is being given to the research based knowledge that brain and body development are critically linked in the preschool years. It is through physical activity and movement of one's own body that the human brain internalizes the conceptual foundations of laterality (left and right), directionality (up, down, in, out) and position in space (over, under, behind). All these concepts are critical to mathematical thinking related to patterns and relationships, as well as to the foundations of reading and writing. They are necessary in order for the child to "see" how letters are formed and put together in patterns to create words and to translate this understanding into physical movements to recreate these symbols on paper in writing form. Also as young children move their bodies, they learn many concepts through their senses (sensory motor integration). Children need to be provided with many experiences that integrate their body movements with their senses which include: tactile/touch; smell; hearing; taste; sight; kinesthesia (movement); and the vestibular sense (found in the inner ear that helps maintain balance and judge a person's position in space). Young children need those experiences that stimulate the inner ear's vestibular area (e.g., rocking, swinging, rolling, turning upside down, spinning).

The purpose of this section of the document is to focus on developmentally appropriate practices in movement programs as well as health issues for 3 to 5 year old children. Research indicates that connections that are stimulated and used tend to become permanent fixtures; while those that are not tend to be eliminated. It is therefore critically important for adults who interact with these young children to provide the kinds of activities illustrated in this section in order to help promote each child's brain development.

**The foundation of physical education should be an integral part of any program for three to five year old children. For these young learners, physical education focuses on all activities and experiences that support and encourage gross/fine motor development as well as sensory integration.**

## *GUIDING PRINCIPLES*

- **Children should engage in daily movement opportunities designed for their developmental levels in order to enhance the concepts of body awareness, space awareness, effort and**

**relationships, and to develop competence in a variety of manipulative, locomotor, and non-manipulative skills.**
*[National Association for Sport and Physical Education, 2000]*

- **Young children learn and develop in an integrated fashion; thus, learning experiences in movement should encompass and interface with other areas of development.**
  *[National Association for Sport and Physical Education, 2000]*

- **Adults help children understand the satisfaction and joy that results from regular participation in physical activity.**
  *[National Association for Sport and Physical Education, 2000]*

- **Adults use observational assessment of each child's progress to plan and adapt curriculum to meet individual developmental and learning needs.**
  *[Bredekamp, S. & Copple, C., (Eds.), 1997]*

- **Adults provide a variety of novel learning experiences that emphasize the same motor skill, across different environmental contexts, allowing for the gradual development of desired movement patterns and the development of confidence.**
  *[National Association of Sport and Physical Education, 2000]*

- **Adults work in partnership with parents, communicating regularly to build mutual understanding and to ensure that children's learning and developmental needs are met.**
  *[Bredekamp, S. & Copple, C., (Eds.), 1997]*

# FOUNDATION 1

# GROSS/FINE MOTOR AND SENSORY DEVELOPMENT:

## *Locomotor and Non-locomotor skills*

***Young children begin to develop fundamental movements and basic body management competence. They observe, practice, demonstrate, and compare fundamental movements while learning to control their bodies in relation to other individuals and independent objects.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Perform locomotor and non-locomotor skills at a basic level (e.g., marching, walking, running, hopping, kicking, crawling, jumping forward with feet together, sliding, stretching, climbing, and walking in a line one behind the other).

- Perform stability skills alone and/or with a partner. (e.g., transferring weight so as to rock, roll, stand on one foot for six seconds and walk up and down steps with alternating feet, tumbling skill of somersaults and log rolls, and walking on a balance beam forward and backward).

- Manipulate objects by throwing, catching large balls with two hands, striking, swinging, and pulling at a basic level. (e.g., throws an object at a target with an overhand motion and trunk rotation, throws something upward and catches it, and jumps over a stationary object).

- Perform basic rhythmical skills alone and/or with a partner. (e.g., the child marches and dances to music or rhythmical sounds in free form or with simple adult directions).

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Encourages the child to walk, run, hop, and jump on the lines of a sidewalk or drawn lines on a hard surface.
- Visits parks or nearby playgrounds to climb on the equipment, throw, catch and/or kick a ball, and swing on the swings.
- Makes up motions of clapping, stomping, marching to accompany nursery rhymes or other rhyming verses/chants and music.
- Provides a variety of music for rhythm movement in order to build an understanding of directionality and position in space (e.g., up, down, over, under, left, right, top, bottom, outside, and behind).
- Provides materials and equipment for encouraging body movements (e.g., a ball of wadded paper, bean bags, balloon and a stick or empty paper towel roll for hitting the balloon, a wagon and/or doll stroller to push or pull).
- Provides opportunities to climb, hop on one or two feet, lie on a skateboard and push with one's hands, or jump in leaves or snow.
- Provides physical activities that stimulate the inner ear (e.g., rocking, swinging, rolling, spinning, or jumping).
- Provides physical activities in which only one side of the body is used at a time (e.g., hopping).
- Provides activities that promote crossing the midline of the body (e.g., moving limbs and eyes across the middle of the body from right to left or left to right to perform a task).
- Provides a variety of manipulative toys (e.g., blocks, cubes, popsicle sticks).
- Provides experiences that support the use of hands in many different positions.
- Provides a vertical or near-vertical surface to allow the wrist to be extended and bent back in the direction of the hand (e.g., upright/portable easels, wall-mounted chalk/marker boards).

- ➢ Encourages the child's participation in art activities that utilize pincer grasp of thumb/forefinger (e.g., gluing small pieces of paper, peeling/sticking stickers, picking up small objects with fingers or tweezers).
- ➢ Provides activities that strengthen hand grasp (e.g., squeezing clay and play dough, squeezing water out of sponges, using a hand held hole punch to punch holes in paper of various thickness).

## Scenario
## *Scarf Dancing*

Mrs. Madison places a box on the floor as she and the children gather together. Mrs. Madison asks questions to enhance the children's interests in what is inside the box. As the children make guesses, she charts their words/thoughts. Mrs. Madison then opens the box and shows what is inside, many colored and differently textured scarves. (There are more scarves than children so that the last child still has several scarves to choose from.) Mrs. Madison and each child choose a scarf and then begin to move and wave the scarf back and forth; up and down; between legs, behind the back; over the head; left and right; and behind a friend's back. Music representing various rhythms is included in the activity. Mrs. Madison asks as they all move, "Is the music slow; fast; happy; or sad?" (e.g., country music, jazz, classical). Mrs. Madison and friends then move outside to toss the scarves into the air, to see what happens. With a partner, they also toss the scarf back and forth to enjoy tossing and catching.

***Adaptation:***

- Can substitute plastic grocery sacks for scarves.
- Think about ways to involve children with special needs.
- Can be an inside or outside activity.

***Extension:***

- While moving with scarves, run, hop, jump, skip, or slide feet.

***Social/Emotional:***

- Pretends with objects.
- Follows simple directions.

***Cognitive:***

- Asks and responds to questions.
- Shows curiosity.
- Finds more than one solution to a problem.
- Uses creativity.
- Increases awareness of cause and effect relationships.

***Physical:***

- Coordinates eye-hand movements.
- Discriminates differences in texture.
- Builds, strength, flexibility, coordination in hands and fingers.
- Helps to develop large muscles (gross motor skills).

***Self-help:***

- Chooses scarf.
- Moves without adult assistance.

***Communication/Literacy:***

- Repeats simple directions.
- Uses words to describe motions, needs, and how music makes them feel.
- Talks with friends.

# FOUNDATION 2

# APPLICATION OF MOVEMENT CONCEPTS AND PRINCIPLES TO THE LEARNING AND DEVELOPMENT OF MOTOR SKILLS:

## *Identifying Movement Concepts and Applying to Motor Skills*

***Young children begin to develop movement vocabulary and to use terminology accurately. The children apply movement concepts to motor skills by responding appropriately to direction (front/back, side/side, left/right, personal and general space, effort and force (hard/soft), and speed and flow (fast/slow).***

## YOU MAY SEE THE CHILD BEGIN TO:

- Identify and use a variety of spatial relationships with objects (e.g., the child will move self and/or an object over, under, beside, and through as directed by an adult).
- Attempt to apply concepts to specific movement situations (e.g., bend knees to soften the landing and avoid obstacles in the path).
- Follow rules for simple games and activities.

- Integrate a variety of educational concepts in games and rhythmic/fitness activities (e.g., child moves like a lion and roars as he/she moves).

- Recognize and solve problems through active explorations.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides activities that assists the child in learning to follow simple rules and successfully participating in the group by listening to directions and waiting for a turn.

- Provides opportunities for the child to jump off of and over things and/or equipment.

- Involves the child in a variety of games using a soft ball.

- Supports the child's rhythm and movement experiences by providing pots, pans, bowls, and kitchen utensils as musical instruments.

- Provides physical experiences that promote sensory motor integration (e.g., integrates the child's movements with all their senses).

- Provides materials and objects of various textures (e.g., variety of balls, pudding, shaving cream, painting with feet).

- Provides scissor activities to build hand coordination/control by beginning with the use of tongs to pick things up, moving to unstructured snipping to familiarize the child with the motion of opening/closing scissors without the pressure of making something, progressing to cutting within a track, and finally cutting on a line and stopping at a marked point.

- Provides activities that promote finger isolation and moving fingers individually (e.g., songs, finger-plays, an old typewriter, piano keyboard).

- Encourages different body positions when playing board games or while sitting during story or group times.

## Scenario

### *Follow the Leader*

Mr. Adams is taking his group of 3 and 4 year olds on a " follow the leader" trip around the play area. He will begin as the leader giving directions and modeling various movements throughout the "trip". They will walk under low branches, jump over rocks, hop three times, throw leaves in the air (feel the leaves), sway their bodies left and right, and smell the air. Mr. Adams will ask several children to take a turn as group leader during the "trip". One child in the group participates from his wheelchair, and the adult with him stresses completing the upper body activities.

***Social/Emotional:***

- Respects other's space in line.
- Takes turns.

***Cognitive:***

- Follows directions/verbal.
- Counting.
- Asks and responds to questions and statements.
- Uses creativity and imagination.

***Physical:***

- Imitates body movements.
- Tolerates textures.
- Initiates body movements.

***Self-help:***

- Completes activities independently.

***Communication/Literacy:***

- Understands verbal directions.
- Verbalizes directions to others.

# FOUNDATION 3

# ENJOYMENT OF MOTOR AND SENSORY EXPERIENCES:

## *Exhibiting Self-Confidence*

***Young children seek out and enjoy challenging physical activities that support their growth in self-expression while encouraging and supporting social interactions with others.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Exhibit self-confidence while participating in movement activities.
- Talk about enjoying movement activities.
- Express both positive and negative feelings about participating in physical activities.
- Participate in a variety of gross/fine motor and sensory activities.

- ➢ Attempt new gross/fine motor and sensory activities (e.g., running, hopping, jumping, marching, throwing, catching, swinging).
- ➢ Demonstrate a determination to develop skills through repetitive practice.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- ➢ Provides the child with age-appropriate gross/fine motor and sensory activities that are fun, yet challenging.
- ➢ Talks with the child about feelings while participating in gross/fine motor and sensory activities.
- ➢ Encourages the child to act out various roles (e.g., people, animal movements) as a means of self-expression.
- ➢ Provides positive feedback when the child tries a new gross/fine motor and/or sensory activity.
- ➢ Provides positive feedback as the child continues to attempt an activity that may not yet be easy.
- ➢ Incorporates various motor/sensory experiences while transitioning from one activity to another or from one place to another.

## Scenario
## *Music and Chalk Activity*

Mrs. Marshall has 15 four and five year olds in her class. Today she tells them that they are going outside to the sidewalk area. (Choose a safe area for this activity with a large area of concrete/asphalt.) Mrs. Marshall lets each child choose several colors of sidewalk chalk. Then Mrs. Marshall shares with the children that she is going to play different types of music. (e.g., classical, country, jazz). While listening to the music, the children are encouraged to create a chalk design. As they draw and create to the music, Mrs. Marshall talks with the children about the music. Is it fast; slow; happy; or sad? When the music is turned off, Mrs. Marshall invites the children to talk about their creation, describing the work and telling how the music made them feel.

***Social/Emotional:***

- Shares thoughts and feelings.
- Expresses self through art.
- Respectful of other's space.

***Cognitive:***

- Identifies differences in colors, music, feelings.
- Asks and responds to questions/thoughts.
- Use creativity and imagination.

***Physical:***

- Grasps the chalk.
- Moves hand, wrist, and arm as the child draws.
- Strengthens eye-hand coordination.

***Self-help:***

- Chooses chalk.
- Finds own space.
- Works independently.

***Communication/Literacy:***

- Uses words to describe the creation.
- Expresses oneself using 'feeling' words.
- Tells a 'story'.

## Scenario

## *A Backyard Obstacle Course*

Today Mrs. Stewart has set up an outside obstacle course for the children. As the children move through the obstacle course, they will be raking leaves, crawling through a tunnel, jumping and touching a suspended balloon, pouring water from one container to another, picking up a toy with a pair of tongs, and pulling a wagon and pushing it back. Ciera, who has broken her arm, will be partnered with another child and will be encouraged to do the best she can. Also for safety reasons, adults will watch and help as needed.

***Social/Emotional:***

- Demonstrates confidence in one's growing abilities.
- Demonstrates increasing independence.
- Demonstrates trust in adults.
- Understands and respects differences.
- Helps others in need.
- Works cooperatively.

***Cognitive:***

- Finds more than one solution to a problem.
- Uses planning skills.
- Recalls a sequence of events.
- Recognizes patterns and repeats them.
- Uses creativity and imagination.

***Physical:***

- Learns skills that require automatic body awareness.
- Uses fine and gross motor skills.
- Coordinates eye-hand movements.
- Uses body with increasing control.

***Self-help:***

- Completes task with minimal or no adult assistance.
- Finds own space.

***Communication/Literacy:***

- Talks with other children/adults during activity.
- Uses words to describe events and feelings.
- Repeats/follows simple directions.

# FOUNDATIONS 4

# RESPONSIBLE PERSONAL HEALTH AND SAFETY PRACTICES:

## *Developing an Awareness of and Respect for a Healthy Lifestyle*

***While participating in physical activities, young children are beginning to form an awareness of health and safety practices that support the growth of a healthy lifestyle. Also through activities and experiences, they are guided and encouraged by the adult to develop greater interdependence for personal care and safety.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Participate actively in games, outdoor play, and other forms of exercise that enhance physical fitness.
- Show a growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting.
- Build an awareness and ability to follow basic safety rules (e.g., fire and traffic/pedestrian safety).
- Respond appropriately to potentially harmful objects, substances, and activities.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides an appropriate amount of time for children to participate in indoor and outdoor play.
- Provides instruction on proper hand washing and drying.
- Supports the child's effort in toileting, brushing of teeth, and manipulating clothing.
- Provides a variety of snacks and meals as well as instruction in healthy eating habits.
- Encourages the child to be responsible for personal belongings (e.g., hanging up jackets, back packs).

- Uses teachable moments to instruct the child about pedestrian/traffic safety (e.g., drop-off/pick-up times, while walking, field trips, use of proper restraints).

- Takes the responsibility of keeping harmful objects and substances out of the reach of the child.

- Teaches the child about harmful objects and substances.

- Provides opportunities to participate in community health and safety programs (e.g., dentist, doctor, veterinarian, fire fighter, police officer).

## Scenario

## *Trip to the Grocery Store*

Today is a very special day for Mrs. Scott's preschool class. The children are going to visit a local grocery store located three blocks away. One of the children in the group, Dong-Moon, has a limited use of the English language. Both his expressive (spoken) and receptive (heard/understood) English language skills are just beginning to emerge. Dong-Moon's mother and father go along to help support his learning and learnings for the other children. The children will be able to hear both the English word for what they see as well as the Korean word. Because the children will be away for almost two hours, Mrs. Scott requests that each child visit the restroom before leaving. With Mrs. Scott's guidance, independently the children use the toilet and wash and dry their hands. The children then go to their cubbies and put on their jackets and hats making sure they are zipped, snapped, or buttoned. Children are given the opportunity to complete the task independently before adult help is offered. On the way to the store, the children practice traffic and pedestrian safety they have discussed and learned. At the grocery, Mrs. Scott talks about the various foods, asking questions about the names of the foods, healthy choices or not, and the type of foods (e.g., dairy, produce, meat). In the pharmacy area, there is discussion about what a pharmacy is and the types of medical supplies available. Looking at various cleaning supplies at the grocery, the children and adults discuss safety issues related to the use of these supplies. Throughout the visit, Dong-Moon's family helps support his growing understanding of the English language. Before leaving the store, each child chooses a piece of fruit to purchase and eat while walking back to their preschool. Back at the preschool, the children each share about their favorite part of the trip as Mrs. Scott writes their words. At the same time, Dong-Moon's family and Dong-Moon pronounce and write the Korean word.

***Social/Emotional:***

- Takes turns.
- Shares.
- Helps each other.
- Identifies oneself as a member of a group.
- Understands and respects differences.

***Cognitive:***

- Asks and responds to questions.
- Demonstrates an interest in exploring.
- Classifies objects by similarities and differences.
- Makes comparisons.
- Follows simple directions.
- Identifies names of objects and events.
- Recalls a sequence of events.
- Demonstrates an interest in writing.

***Physical:***

- Moves from one place to another (gross motor skills).
- Demonstrates visual discrimination skills.
- Discriminates by taste and smell.
- Discriminates differences in texture.

***Self-help:***

- Prepares for the field trip (personal care).
- Chooses a piece of fruit for snack.

***Communication/Literacy:***

- Talks while walking and during the time at the grocery.
- Watches for print inside and outside.
- 'Reads' signs, boxes, containers.

# FOUNDATION 5

# RESPECT FOR DIFFERENCES:

## *Using Positive Interpersonal Skills*

***Young children begin to demonstrate an understanding and respect for differences among people in physical activity settings. Positive interpersonal skills such as cooperation, sharing, and courtesy toward others serve as a foundation for understanding and respecting differences.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Take turns during physical activities.
- Help others during physical activities.
- Work together as a team toward a common goal.
- Play cooperatively with others during physical activities.

- Treat others with respect during physical activities.
- Resolve conflicts in socially accepted ways during physical activities.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides opportunities for the child to practice taking turns during physical activities.
- Provides opportunities for the child to serve as a peer buddy for another child during physical activities.
- Provides opportunities for the child to work with others toward a common goal.
- Introduces the child to the cultures of others through customs, dances, and rituals.
- Provides opportunities for the child to simulate various disabilities (e.g., walking on a line on the floor, wearing shop goggles that are scratched/covered to simulate a visual impairment).
- Talks with the child about differences in abilities (e.g., some children more easily jump, some more easily hop).

## Scenario
### *Rolling the Balls*

There are ten children in Ms. Woods' preschool. Within this preschool program, Ms. Woods encourages physical activity to both support each child's developing motor skills and to educate each child about healthy lifestyles. One of the group's favorite activities is playing with balls. Today the children will work with a partner and roll a ball back and forth. While working with a partner, Ricky especially likes to work with Max who is in a wheel chair. After an adult and Ricky help Max from his wheel chair to the floor and support his back, Ricky and Max roll the ball back and forth. Ricky and Max sit close with feet touching so that they can confine the ball with a specified boundary and within Max's reach. Different weighted/textured balls are used during this activity to help strengthen the children's arms and upper bodies while enhancing their senses of touch and sight.

***Social/Emotional:***

- Interacts with others.
- Identifies oneself as a member of a group.
- Demonstrates interest and participates in activity.
- Understands and respects differences.
- Works cooperatively.

***Cognitive:***

- Uses planning skills.
- Demonstrates an awareness of space.
- Follows simple directions.
- Persists in tasks.

- Finds more than one solution to a problem.
- Makes comparisons.

***Physical:***

- Uses gross motor skills with confidence.
- Rolls an object in the intended direction.
- Demonstrates visual discrimination skills.
- Discriminates differences in weight and texture.
- Coordinates eye-hand movements.

***Self-help:***

- Rolls the ball without adult assistance.
- Retrieves the ball when necessary.

***Communication/Literacy:***

- Follows simple directions.
- Uses words to describe activity/feelings.
- Conversations during the activity.

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PE Central: http://pe.central.vt.edu/

PELINKS4U: http://www.hotpe.com/

Education World PE and Health: http://www.education-world.com/pe_health/

*Appropriate Practices in Movement Programs for Young Children, Ages 3-5:*
http://naspe@aahperd.org

# MUSIC

## FOUNDATIONS FOR MUSIC

Music is natural, spontaneous, and fun for young children. Music moves children emotionally and physically just as with adults. It helps set a mood. Singing and chanting helps children make routine activities and transitions smoother and more enjoyable. Brain research tells us that intuitive aptitude for music stabilizes at about age 9. The early childhood years are critical to the development of the child's potential for understanding and producing music. Music is an important part of an early childhood curriculum because of it's multiple benefits: calming, stimulating, eases transitions, invites movement, and serves as a learning tool. Music fosters child development. Music may be used to help children think divergently or creatively. There are many opportunities for music to interact with other curricular areas and to provide practice for social, language, cognitive, and physical development. The attention span of children can be lengthened through good listening experiences. Music play with songs and instruments in early childhood settings can lead young children to deeply satisfying experiences for learning and communication.

## GUIDING PRINCIPLES

- **Musical experiences offer children alternative modes of symbolic thinking and expression.**
  *[Mitchell, A. and David, J., (Eds.), 1992; Trister Dodge, D. and Colker, L.J., 1999]*

- **Music is "the universal language." Through music, children learn respect for other cultures. Music can help children broaden their understanding of each other.**
  *[Mitchell, A. and David, J. (Eds.), 1992; Palmer, Hap, 2001]*

- **Music is an enjoyable art form that aids self-expression.**
  *[Taylor, B., 1991; Trister Dodge, D. and Colker, L.J., 1999; Mitchel, A. and David, J., (Eds.), 1992]*

- **The early childhood years are critical to the development of a child's potential for comprehending and producing music.**
  *[Seefeldt, C, (Ed.), 1999]*

- **Music is important to socialization. It is one of the highest forms of human group interaction. Music has the power to influence feelings and emotions.**
  *[Mitchell, A. and David, J. (Eds.), 1992; McDonald, D.T. and Simons, G.M., 1989]*

- **Music is an early form of communication of emotions, experiences, or ideas. Children think with their bodies long before they think with words. Music is a comfortable way for children to express themselves.**
  *[Trister Dodge, D. and Colker, L.J., 1999; Taylor, B., 1991]*

# FOUNDATION 1
# MUSIC APPRECIATION:

## *Children Show Enjoyment of Music Through Facial Expressions, Vocalizations, and Various Movements*

***Music naturally delights children. Young children are comfortable with music and movement. Music activities are fun for children and also benefit their development. Music brings a new dimension of beauty into their lives. As children grow in their appreciation of music and movement, they acquire a gift that will bring them pleasure throughout life.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Smile or laugh when music is played.
- Verbally express enjoyment.
- Sing along to familiar songs.
- Request certain songs/finger plays, etc.
- Clap hands in glee/begin to clap in rhythm.
- Dance/sway/tap toes/jump/hop to music alone or with others.
- Respond positively to transitions from desired to less desired activity when paired with music.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Listens to children and includes their ideas and interests in planning the curriculum.
- Provides opportunities for children to experience a variety of music media (e.g., singing, finger plays, instruments).

- Uses a variety of music (e.g., classical, jazz, children's music, top 40) during music time and various times of the day.
- Makes music an integral part of the day.
- Delights in music with young children.
- Plays a supportive role as young children experiment and discover music.
- Recognizes the individual differences reflected in each child's musical preferences.
- Exercises to music.

## Scenario

## *Music in Everyday Activities*

By exploring different types of instruments, children develop an appreciation and preferences for various types of music. The instruments can be as simple as various sizes of pots and pans or plastic containers used as drums, bells, or sand paper blocks or as traditional and complex as the piano.

Mr. Tim's class is actively engaged in a variety of typical preschool activities. Some children in the housekeeping center are acting out a family preparing for dinner. Boys and girls are building in the block area, and two children are at the water table filled with rice and corn along with the usual utensils found in the table (e.g., containers, lids, spoons, funnels, sieves). Nina finishes her pretend meal and uses the bottom of the play skillet and a spoon to call the family to the table. Mr. Tim becomes aware that she is banging loudly but rhythmically. He comments on her pattern and volume and asks if she can mimic a pattern he creates using different utensils. Her friend in housekeeping immediately picks up the bell on Mr. Tim's desk and rings it in the same rhythmic pattern. The children in the block corner notice the activity and join in the group tapping their blocks together. Sally presses a button on her communication device to produce beeping sounds that keep time with the rhythm. Mr. Tim moves to the water table filled with rice and corn and asks the children to figure out how they might use those items in the table to create the same rhythmic pattern that is happening in other areas. The children fill their containers with the rice and corn and use them as shakers to join in the music.

Later in the morning, Mr. Tim invites the children to bring their self discovered instruments to the circle and directs the discussion using words like loud and soft, fast and slow, high and low, pleasant and unpleasant. At the end of the discussion, he comments and praises them on their new-found instruments and the way they created music. He encourages the children to put their instruments away appropriately in each area.

***Social/Emotional:***

- Preferences for different sounds.
- Creates and shares sounds.
- Cooperates with friends.

***Cognitive:***

- Creates rhythmic patterns.
- Repetition and creative deviations of sound and sound patterns.

***Physical:***

- Uses body actions (large and small muscle movements) to make sounds.
- Uses fine motor skills to pick up rice and corn.

***Self-help:***

- Cleans up materials.

***Communication/Literacy:***

- Uses contrasting terms such as loud and soft, high and low, fast and slow, and pleasant and unpleasant to the ears.

# FOUNDATION 2
# PARTICIPATION/EXPLORATION/PRODUCTION:

## *Children Produce Vocal/Instrumental Music And Rhythmic Movements Spontaneously And In Imitation*

***Throughout the early childhood years, children are learning to do new things with their bodies. Young children readily sing and perform to catchy music or commercials on the radio or television. Young children enjoy activities that have rhythm and repetition. They like to imitate actions such as playing the piano or guitar or singing.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Hum or sing familiar/original lullaby while rocking a doll.
- Produce rhythmic patterns to familiar songs (e.g., *Jingle Bells*).
- Create own alternate pattern/action for a finger play to a familiar song.
- Spontaneously explore sounds produced by striking a variety of materials (e.g., pots and pans, wooden spoons, measuring cups, wooden blocks).
- Hum or sing along to tune playing on radio, tape/CD player, or television.

- Sing songs from favorite movies or television shows from memory.
- Follow repetitive patterns of movements.
- Use words/concepts learned through music in non-musical activities.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Helps the child create music by using own words
- Plays a supportive role as the child experiments and discovers music
- Uses familiar songs to help the child solve problems.
- Identifies natural rhythm in the classroom or play area (e.g., clocks, squeaks, drips, bouncing balls, swaying trees).
- Claps rhythmic patterns to names, poems, and nursery rhymes and has child repeat them or do them together.
- Uses body actions to music (e.g., *Head, Shoulders, Knees, and Toes*).

## Scenario
## *The Music Center*

During free play, Tom, Madison, and Caesar are at the music center. It is equipped with simple, homemade instruments (e.g., foil pan tambourines, oat meal box drums, wooden sandpaper blocks, rubber band guitars). They each choose an instrument and begin to play it. Tom makes his choice by pointing to a photo of a tambourine in his communication book. A peer brings the instrument to him. Ms. Smith approaches and asks if she can join their band. They agree, and they play together for a short time, trying different instruments even trading with each other. Ms. Smith notices that Tom is creating a particular rhythmic pattern. She asks Madison and Caesar if they think they can play the same pattern on their instruments. She joins them as they try to imitate Tom's rhythm pattern. They take turns being the "leader", having the others imitate them.

***Social/Emotional:***
- Shares and cooperates with others.
- Expresses emotions through music.

***Cognitive:***
- Experiments with a variety of sounds.
- Imitates rhythmic patterns.

***Physical:***
- Uses gross and fine motor skills.
- Improves coordination.

***Self-help:***

- Practices guidelines for use of instruments established by the teacher/adult.

***Communication/Literacy:***

- Promotes non-verbal communication skill of taking turns.

# FOUNDATION 3
# ANALYSIS:

## *Children Begin to Differentiate Variations in Tempo, Dynamics, and Types of Sounds Made by Different Classes of Instruments (Percussion, Wind, and String)*

***Children enjoy real or improvised musical instruments. They like to keep time and hear others make music. They develop creativity and imagination by responding to problems in movement and music. Young children refine their listening skills by noticing changes in tempo or pitch.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Play classroom instruments.
- Moderate movements to tempo (fast/slow) and dynamics (loud/soft) of music heard.
- Moderate vocalizations to tempo and dynamics of music.
- Choose real or improvised instruments to play along with instrument heard.
- Distinguish among the sounds of several common instruments.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Builds a strong and varied repertoire of rhythms, finger plays, poetry, and movement exercises.
- If not musically inclined, arranges for another person to assist or uses records, tapes or CDs rather than eliminate music from the daily curriculum. The voice is an important musical instrument and an ordinary voice is all that is necessary—enthusiasm is what makes the difference.
- Provides experiences that help the child release feelings constructively, whether the feelings are of anger or hostility or joy and excitement.
- Over a period of time, teaches about the three groups of instruments (e.g., woodwinds, percussion, and string).
- Provides props that encourage rhythm and music (e.g., blocks, sticks, coconut shells, shakers, or bells).
- Provides guidance so the child will know what is expected. Can the child play with the new drum, or is it just for the teacher? Do instruments stay in a certain area? Who can operate the record player or tape recorder?

## Scenario
## *Walk and Jog*

Mary, a home child care provider, wants to give the children a great physical and auditory work out. All she needs is a bell and a set of rhythm sticks for a fun movement activity. She asks the children to "click" a slow beat on sticks. She calls this "walking music." Then she asks the children to "click" out a faster beat with the sticks and calls this "jogging music." She gives Rodney, who has difficulty gripping and bringing sticks together at midline, a clicker so that he can count out the rhythm by opening and closing his right hand. Mary asks the children to listen to the sticks' rhythm. When they hear the "walking music", they should walk around the room. When they hear the "jogging music", jog. When she rings the bell, this means "stop and drop." She and the children have fun with the slow and fast beats of the sticks and the ringing bell.

***Social/Emotional:***

- Demonstrates interest and participates in activities.
- Respects space of others.

***Cognitive:***

- Exercises memory.
- Follows simple directions.
- Increases auditory awareness.

***Physical:***

- Uses gross motor skills.

***Self-help:***

- Encourages self control.

***Communication/Literacy:***

- Listens and responds to music.

## Scenario

## *Sound Table*

Mrs. Leslie started a "sound table" with a few small boxes and an assortment of objects such as buttons and paper clips. Children were encouraged to bring objects they found elsewhere in the room (e.g., beads, small blocks) and outdoors (e.g., rocks, wood chips, gravel) to add to the collection. The teacher helped Tony, who has a severe visual impairment, find things to bring to the table by letting him feel things around the room. Peers helped Tony find things for the table by helping him feel things outside during recess. Mrs. Leslie labeled all objects and materials. From time to time, Mrs. Leslie added new materials including rice, marbles, tiny balls, and boxes of varied sizes from band-aid boxes to coffee cans. By encouraging different combinations of boxes and objects, Mrs. Leslie observed the children becoming more aware of sound and more interested in exploring the sound-making possibilities of the self-made music instruments.

***Social/Emotional:***

- Finds and shares objects for the sound table.
- Works together to create various sounds.

***Cognitive:***

- Chooses and discriminates sounds made by various objects.

***Physical:***

- Uses small muscles.
- Uses gross motor skills if the children create a marching band.

***Self-help:***

- Finds objects and creates own instrument.

***Communication/Literacy:***

- Communicates feelings with the instruments created.
- Demonstrates the letters grouped together to make words.

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# VISUAL ARTS

## FOUNDATIONS FOR VISUAL ARTS

Young children naturally enjoy art. Art benefits all aspects of a child's development. Creative expression helps children realize they are worthwhile people with good ideas who can do things in different ways. It contributes to helping children better understand their world. Brain research indicates that creativity increases in preschool children until the age of 5, when a sharp decrease begins. Art should be integrated into all preschool curriculum areas. Art materials that are appropriate to the developmental level of the child promote curiosity, verbal and nonverbal expression, reading and math skills, physical development, social-emotional skills, and self-help skills. The adult needs a wholesome, accepting attitude toward the use of creative and artistic materials rather than thinking of art materials as a waste of time or messy. Adults sometimes wonder if coloring books, patterns, and pre-cut models are appropriate art experiences for young children. These materials are not recommended as a means for providing art experiences. These materials are often frustrating to three, four, and five-year old children who do not have the manual dexterity or eye-hand coordination to stay within the lines, to cut along the lines, or to reproduce a picture made by an adult. Children like to draw or make things as they see them. It is recommended that adults rely on activities that allow children to be creative and individualized in their artwork.

## GUIDING PRINCIPLES

- **Art enables children to learn many skills, express themselves, appreciate beauty, and have fun all at the same time.**
  *[Trister Dodge, D. & Colker, L. J., 1999; Epstein, A.S., 2001]*

- **For young children, the process of creating is what's most important, not what they actually create.**
  *[Trister Dodge, D. & Colker, L. J., 1999]*

- **Working with art materials and uninterrupted time for artistic expression helps benefit all aspects of a child's development. Art enhances other areas of development such as perception, cognition, fine and gross motor skills, language and social interaction.**
  *[Taylor, B. 1991; Trister Dodge, D. & Colker, L. J. 1999; Mitchell, A. & David, J., (Eds.) 1992]*

- **Children learn about the world through sensory experiences. Art helps children examine some of the complexities of the real world in small manageable pieces.**
  *[Taylor, B. 1991; Seefeldt, C., (Ed.) 1999]*

- **If children develop appreciation for aesthetics at a young age, their environment becomes more meaningful**
  *[Epstein, A.S., 2001]*

- **The adult plays an important role in planning and providing art experiences for the young child. Visual arts are critical to the development of an integrated, meaningful early childhood curriculum.**

*[Taylor, B. 1991; Seefeldt, C., (Ed.) 1999]*

- **Children express how they think, feel, and view the world through their art. Children learn from experiences that allow them to express their ideas and feelings.**

*[Taylor, B. 1991; Trister Dodge, D. & Colker, L. J. 1999]*

# FOUNDATION 1

# ART APPRECIATION:

## *Begins To Understand and Share Opinions About Artwork and Artistic Experiences (Their Own or Others)*

***Young children will become aware that the world is richer because of art. They will become aware of different cultures, and that art is a way people express ideas and feelings. Different people have different reactions and opinions about works of art.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Imitate different cultures through art.
- Create meaning and make sense of the world around them through exposure to cultural artifacts.
- Understand differences and preferences as he/she encounters artwork.
- Describe art work and interpret potential intentions of the artist.
- Express feelings about art work.
- Wonder about or asks questions about works of art.
- Respond in various ways to the creative work of others. (e.g., body language, facial expression or oral language)
- Role play imaginary events and characters in the media.

# A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- ➢ Recognizes the different cultures within the group.
- ➢ Expresses a sense of awe and appreciation of art work.
- ➢ Values each child's creative efforts.
- ➢ Provides art media and materials that are culturally responsive to diversity of families and community.
- ➢ Provides artifacts that celebrate human diversity and history.
- ➢ Asks open-ended questions.
- ➢ Describes what the adult sees.
- ➢ Brings reproductions of art into the environment.
- ➢ Provides an accepting attitude toward each child's ideas.
- ➢ Notices and comments about real and imaginary events and characteristics.
- ➢ Expresses feelings about art.
- ➢ Imagines or creates a story from artwork.

## Scenario

## *A Trip to the Art Museum*

Set the stage for a field trip to an art museum by telling the children they will have the opportunity to view what other people have created to share their ideas and feelings about the world. Be appreciative and enthusiastic about the opportunity to see beautiful art. Invite the children to enjoy and then stop by several different pieces of artwork that seem to interest them. Ask open-ended questions and express your own thoughts about the colors, shapes, lines, and designs. (Does the picture make you think of being "tight" or "free?") Invite the children to move their bodies like the lines and shapes in the pictures, pretend statues, and so forth. Ask the children to describe what they see. Talk about how the artwork makes one feel. What might the artist be telling us with this artwork? Which piece would they like to take back to their room?

Return to the classroom or home and invite the children to paint a picture or shape clay for their own artwork show. Ask them what kind of lines they will use—straight or curvy? What shapes they will use—large or small? Listen to the children's conversation as they work and find opportunities to note specific descriptions of what the children are creating. Position a paintbrush in the custom-designed splint to hold marking utensils for the child who cannot grip independently.

***Social/Emotional:***

- Expresses feelings and experiences pride.
- Shares and cooperates with others.

***Cognitive:***

- Encounters art materials.

- Uses processes and techniques to give form to what has been seen and learned.
- Learns about shape, line, color, through experiences.
- Develops planning skills.

***Physical:***

- Develops large and small muscle skills and eye-hand coordination.

***Self-help:***

- Demonstrates care and persistence in artwork.

***Communication/Literacy:***

- Promotes communication by sharing ideas and feelings.

# FOUNDATION 2
# CREATING ART: PROCESS AND PRODUCT

## *Expresses Personal Interests, Ideas, and Feelings Through Art*

***Children express how they feel, think, and view the world through their art. Through art, children can convey what they may not be able to say in words. Young children develop independence, confidence, pride, and self-expression through concrete, hands-on learning in an environment that stimulates creativity through art.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Participate freely in dramatic play activities that become more extended and complex.
- Express self in dramatic play through story telling, puppetry, and other language development activities.
- Value and appreciate differences through viewing own creations and those of others.

- Use various art forms such as dance, theater, and visual art as a vehicle for creative expression.
- Select different art media to express emotions or feelings. (e.g., painting with bright colors to match a playful mood)
- Use art media to channel frustration and anger in a socially acceptable way. (e.g., punching and pounding clay)
- Assert individuality such as in drawing a pumpkin that differs in color and design from the traditional.
- Engage in cooperative pretend play with another child.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Provides an accepting attitude toward child's ideas.
- Gives recognition by exhibiting each child's work.
- Uses child's imagination as a motivation for art (e.g., the adult reads a fantasy story, provides props so the child can reenact the story, and provides art materials so child can represent the fantasy story).
- Views art materials as meaningful rather than a waste of time and messy.
- Provides creative experiences that are well planned and executed.
- Demonstrates the ability to represent experiences, thoughts, and ideas using several art forms.
- Uses a variety of art media for self-expression.

## Scenario

## *Finger Painting*

Finger painting is a good emotional release for children. They can express many moods (e.g., joy, anger, sorrow, silly). Finger painting also provides a sensory experience. Adding different substances to paint (e.g., sand glitter, rice, paper) can change the experience. During the finger painting session at Tamyra's preschool, the teacher first defined the limits for the children. She dampened the paper with a sponge so the paper adheres to the surface and spread the paper smoothly on the table. She put a heaping tablespoon of finger paint on the paper (colorless paint may be used or the teacher can sprinkle powdered tempera on paper). The teacher clamped a wooden frame that fit over Dan's piece of paper to the table. This made it easier for Dan, who cannot see the edges of the paper, to keep his painting from going off the paper and on to the table. During the activity, the teacher played several types of music. The teacher mentioned that the children can also make designs with their fists, knuckles, palms, and fingernails. When the session was finished, the children were encouraged to clean up. The teacher had sponges and water ready. The children wore smocks, aprons, or other coverings to protect clothing.

Tamyra was frightened by a barking dog on her way to preschool in the morning. While finger painting, she made a resemblance of a dog, and she quickly wiped it away. She showed fear and rubbed it out. Jimmy found sliding his hands through slippery finger paint relaxing. Polly finished her finger painting abruptly. The teacher asked "Is there anything else you would like to add to your painting?" in order to help restore self-confidence and provide encouragement.

***Social/Emotional:***

- Expresses feelings in socially acceptable ways.

***Cognitive:***

- Thinks for themselves through the use of raw materials.

***Physical:***

- Develops fine and gross motor muscles through self-expression.

***Self-help:***

- Practices limits or guidelines established by the teacher.

***Communication/Literacy:***

- Promotes verbal and non-verbal communication by sharing ideas and feelings.

## *Uses Symbols, Elements Such As Shape, Line, Color, and Texture and Principles Such As Repetition In Art Experiences*

***The ability to use symbols to make one thing stand for another is an important milestone in cognitive development. Art enhances children's ability to interpret symbols. Working with art materials offers children opportunities to learn about color, shape, design, and texture. As children draw, paint, and make collages they experiment with color, line, shape, and size.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Use different colors, surface textures, and shapes to create form and meaning.
- Use objects as symbols for other things. (e.g., a scarf to represent bird wings or a box to represent a car)
- Pretend through role-playing.
- Progress in ability to create drawings, models, and other art creations that are more detailed, creative, or realistic.
- Decide which lines should be long or short, wavy or straight, thick or thin and what color and where on the paper.

- Watch an activity before entering into it.
- Enjoy repetition of materials and activities to further explore, manipulate, and exercise the imagination.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Does not pressure the child to "make something" to account for time.
- Keeps in mind that growth is uneven and that advances in physical growth and a child's knowledge of the body can affect artistic expression.
- Recognizes where each child "is" in terms of physical, emotional, and intellectual development, and uses art materials and plans experiences accordingly.
- Serves as a facilitator, making materials available in a setting where the child can work undisturbed and motivate the child to experiment and discover.
- Talks about how the work is done and leaves it to the child to talk about what it stands for and what it means to the child. The adult comments on lines, shapes, colors, patterns, textures, how they are repeated, and how they are arranged.
- Offers the materials regularly over the year. One exposure to materials is not enough. (Children continually presented with new media are never able to develop techniques necessary to use the materials to create art.)

## Scenario

### *Creation of designs*

Children, ages 3-5, enjoy arranging shapes, lines, and colors into pleasing designs. They have a spontaneous sense of composition. To do a collage, provide each child with a small shallow box or a box lid or paper plate to hold collage materials. Provide a variety of materials: rough/smooth, opaque/translucent, patterned/plain, 3-dimensional/flat and a glue container and small brush with a short metal handle. Demonstrate how to apply paste on the collage piece. Many young children seem to want to apply the paste to the main piece of paper, not on the collage piece. The experience of selecting and pasting materials is manageable and motivating. Cutting paper with scissors is a separate activity for very young children or children with motor difficulties. Therefore, the adult will want to cut the materials for some children. Children may also tear paper for a collage. Older children, ages 4 and up, can select collage pieces from one or more trays of attractively arranged materials in the center of the table. Three-year-old Tasha carefully alternated pink and red patches filling up her entire paper. Josh, at 4 1/2, finished his collage. His picture reminded him of something, and he suddenly exclaimed "This is a truck." Five-year-old Laura, who sits in a wheelchair during most activities, could not reach the materials. Laura, who also has little or no functional speech, got her materials from the teacher. The teacher asked Laura if she wanted each material and gave Laura the materials for which she indicated "yes. Laura used her speech-generating device to communicate that her collage looked like an umbrella. Children with many experiences in combining and arranging shapes, lines, and colors will begin to plan ahead what they are going to make.

***Social/Emotional:***

- Asserts individuality.

***Cognitive:***

- Enhances creativity by combining materials and textures in a unique way.
- Explores objects and materials independently.
- Experiments with line, shape, color, and size.

***Physical:***

- Refines small muscle movements.

***Self-help:***

- Helps with the clean-up of sorting the various materials into appropriate storage containers and washing glue brushes in warm water.

***Communication/Literacy:***

- Talks about work.

## *Uses Different Art Media and Materials In a Variety Of Ways For Creative Expression, Exploration, And Sensory Experience*

***The critical component of creative art is the process rather than the end result or product. Children learn from experiences that allow them to express their ideas and feelings. With the emphasis on academic achievement, parents and teachers can become too product or time conscious. The art process benefits all aspects of development. Children learn many skills, express themselves, appreciate beauty, and have fun through art.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Gain ability in using different art materials. (e.g., paper, paint, clay, scraps, buttons)
- Discover making people, shapes, lines, and colors from early experiences in art.
- Develop growing ability to plan, work independently, and demonstrate care and persistence in a variety of art projects.
- Use a variety of materials (e.g., crayons, paint, clay, markers) to create original work.

# A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Recognizes that a child's representation of something may not be entirely realistic. It is important to wait for the child to identify the figure or ask if the child wants to say something about the picture rather than asking "what is it?"
- Provides basic art supplies that include (1) painting materials, (2) drawing and pasting materials, and (3) sculpting and molding materials.
- Provides storage and an attractive, neat work area. Shelves should be accessible and contain separately arranged and labeled places for clay, collage, painting and drawing materials, and different kinds of paper.
- Includes time and space. Children need uninterrupted time to investigate and experience art in their own way. They also need space in which to move.
- Provides art experiences that consist of set-up, work time, and clean-up.

## Scenario

## *Handprinting*

The children in Mrs. Brown's early care and education program did handprinting one day. To do this, Mrs. Brown prepared a washable work surface. She used two colors of finger paint, a large (2' X 3') piece of solid-color paper tacked to the wall, and a bucket of warm water nearby for washing hands. Each child put a blob of one color on the table or surface. She encouraged them to move the paint around. She asked the children how it felt, what it smelled like etc. Then she invited the children to make the handprint on the paper on the wall. The teacher helped Sarah put the blob of paint on the table and helped Sarah move her hands through the paint because of Sarah's limited range of motion. Sarah made the first handprint. The teacher brought the paper and put it next to Sarah's hand before putting the paper on the wall where the other children could reach it. The children talked about how each handprint is different. Mrs. Brown labeled the prints with each child's name. Abdul put his hand on Megan's handprint. Since Abdul did not speak much English yet, Mrs. Brown demonstrated the concepts of bigger and smaller using large hand gestures and repeating each color name. She asked Abdul how to say each color in his language, then practiced Abdul's language with the other children. She pointed out that some prints go up, down, or to one side or the other. The children pointed their hands in the directions of the different prints (to teach directionality and improve motor control). Mrs. Brown asked the children how many hands are in each color. (Are there more red hands or blue hands?)

***Social/Emotional:***

- Talks about how everyone cooperated to make the mural.
- Participates in group activity to stimulate curiosity through hands-on experience.

***Cognitive:***

- Learns concepts of directionality, big and small, colors, more or less.

***Physical:***

- Enhances motor development.

***Self-help:***

- Feels independent and committed to the well-being of the child care home communit.

***Communication/Literacy:***

- Responds to the work of others through body language, facial expression, or oral language.

# FOUNDATION 3

# CAREERS AND COMMUNITY:

## *Experiences Art-Related Professionals Through Field Trips, Visiting Artists, And Museums*

***Young children will become aware of art as a profession. They will become acquainted with local artists, museums and displays, and various professions that involve art such as painters, sculptors, clothing designers, animators, graphic arts designers, etc.***

## YOU MAY SEE THE CHILD BEGIN TO:

- ➢ Talk about different art professions.
- ➢ Mimic art works and forms by various artists.
- ➢ Recognize people in the community who are artists.
- ➢ Learn to enjoy and respect the art work of others.
- ➢ Visit and discuss works of art at various locations.
- ➢ Begin to show an interest in the artwork of others.

# A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Invites various local artists into the classroom.
- Provides opportunities to take field trips (e.g., museums, art shows, displays).
- Reads books that demonstrate various art forms.
- Introduces picture books as pieces of art.
- Encourages the child to talk about art in the community.
- Provides various art mediums where a child can mimic art forms.
- Encourages respect for art pieces.
- Exposes the child to beautiful and unusual pieces of art.
- Displays the child's art work.

## Scenario

## *"A Line is a Dot that Went for a Walk"*

Mrs. Jones talked about lines. She reviewed the types of lines one could make from a dot. She started with a dot and made a dotted line, straight line, etc. She encouraged the children to see how many types of lines they came up with. Then she asked the children to draw various types of lines with her: dotted, wavy, straight, spiral, fat/thin, zig zag, curvy, vertical, horizontal, diagonal, parallel, perpendicular, angles, etc.

During circle time, each child got a chance to add to their favorite line, creating a composite picture or creating a story using different types of lines.

The class plans to visit a local art gallery to observe types of lines. Using actual works of art, the children looked for types of lines. This can be done as a group in front of paintings, or children can be given a card with a type of line and search the room for the best example of that type of line. The children will record their observations on cards. Mrs. Jones will duplicate or record observations in the classroom and display as a gallery.

### Line dancing (with instruments)

Mrs. Jones invited a local musician in to demonstrate a variety of instruments including rattles, drums, bells, kazoos, recorders, etc. She asked the children to decide what type of line the instruments sound like, e.g., kazoo = straight line, rattle=wavy or zigzag. Tom, who is deaf, and several other children were given the opportunity to touch parts of the instruments while the musician was playing them so that they could feel the vibrations. The children enjoyed deciding what type of movement was appropriate, e.g., sliding step for a straight line, hopping on one foot for a dotted line, waving arms for a wavy line, etc.

## Magic Disappearing Lines

Mrs. Jones gave a piece of black paper to each child and asked them to do a line drawing with soap like they would see in a coloring book. The children colored in the drawing with colored crayons. She rinsed the drawing until the soap lines disappeared and allowed the drawings to dry. The children saw how important lines are to a drawing (Schlgeck, K., 2000).

***Social/Emotional:***

- Shares and cooperates.

***Cognitive:***

- Uses and discriminates between types of lines and use charting.

***Physical:***

- Uses small motor muscles.

***Communication/Literacy:***

- Communicates ideas verbally to others.

# *Makes Connections Between Art And Other Curriculum Areas*

***Children will begin to make a connection between art and other subjects such as science, mathematics, language arts, social studies, physical education, and music. Skills and concepts taught in other content areas can be reinforced through art lessons and will make learning more meaningful.***

## YOU MAY SEE THE CHILD BEGIN TO:

- Make patterns on their own.
- Recognize patterns in their environment.
- Observe and discuss art forms during a nature walk.
- Imitate art forms of illustrators after listening to a story.

- Sort objects by texture, size, or color.
- Measure ingredients for various recipes.
- Use objects in nature to create a collage or art piece.

## A CHILD CAN BE SUPPORTED BY AN ADULT WHO:

- Reads books and discusses them as pieces of art.
- Provides opportunities for the child to observe art in nature.
- Creates an environment where the child can explore the world through sensory experiences.
- Displays art work in the community.
- Provides materials where the child can sort objects on their own.
- Provides art experiences in all areas of the curriculum (e.g., math, science, reading, writing, music, movement).
- Encourages appreciation of art.
- Provides opportunities for the child to describe art works through dictation or writing.
- Allows for the child to create patterns using various objects (e.g., beads, sequins, blocks, cubes, buttons).

## Scenario

## *Integrating art into the curriculum*

### Crazy About Crayons

### An Integrated Thematic Unit

**Reading**: Show the children a box of crayons. Invite them to choose one and observe it. Ask them how they think the crayon was made. Use a large crayon and record their answers. Read the book "How is a Crayon Made" by Oz Charles. Explain that powdered colors called pigments are mixed with melted wax. The wax is then poured into molds. Later labels are wrapped around the molded crayons and then put into boxes.

**Science**: Put the recipe for crayons on a chart. In a large group, create a crayon using the recipe. Cut used white candles into chunks so that you have enough to half-fill the desired amount of foil muffin liners. Put the liners in a muffin pan them melt the wax in a 240-degree oven for about ten minutes. Immediately stir in one teaspoon of powdered tempura paint. When the wax has cooled, remove the liners. Now take the crayons and test them.

**Art**: Stock an art area with a variety of crayons such as jumbo, skinny, multicultural, glow-in- the-dark, glitter, scented, etc. Provide a number of materials to color on such as construction paper, waxed paper, tissue paper, paper towels, paper bags, aluminum foil, newspaper, and boxes. Invite children to experiment with the colors.

**Science**: Prepare a chart with the word "Floats" and "Sinks" at the top and the different colors of crayons along the side. Laminate the chart. Gather a group of children around the water table and ask them to predict whether a crayon will sink or float. Drop each crayon into the water and record the results with a wipe-off marker on the chart. Discuss the results. Next, try this experiment using different brands of crayons. Record the results and compare them to the first chart. Ask why some crayons sink and others float? Provide Carrie, who has autism, with a picture schedule of steps within each activity in the unit so that she knows what will be coming up next. The steps in this science activity include (1) looking at the chart, (2) standing at the water table, (3) saying "float" or "sink," (4) watching crayons drop in the water, (5) watching the teacher record the results, and (6) talking about what happened with each crayon. All crayons are made of wax and pigment. However, some colors and brands of crayons have more pigment than others. This makes them denser and causes them to sink.

**Music/Movement:**
Circle Time Song "Give Crayons a Hand"
Have children sit in a large circle and give each child a crayon to hold. Make sure they know the color of their crayon. Then sing the following song, changing the color word each time you repeat it. Also vary the movements by including phrases such as shake your head, move your arms, and blink your eyes. Continue until every child is standing.

"Give Crayons a Hand" is sung to the tune of "If You're Happy and You Know It."

If you have a (red) crayon, raise your hand,
If you have a (red) crayon, raise your hand,
If you have a (red) crayon,
(Stomp your feet )and take a stand.
If you have a (red) crayon, raise your hand.

**Social Studies**: "The Crayon Box that Talked"
Read aloud the book "The Crayon Box That Talked" by Shane DeRolf. Give children a chance to practice working together by creating a mural. Ask each child to select a crayon: then write the child's name on a construction-paper crayon shape that corresponds to the color they have selected. Direct the child to use his/her choice of crayon on the mural. When the mural is complete, have each child make a positive comment about the mural or the process. Display the mural along with the poem:

Together we created
This mural that you see.
By using our own talents,
We made a masterpiece indeed

(Schlgeck, K., 2000)

***Social/Emotional:***

- Talks about how everyone cooperated to make the mural.
- Participates in group activity to stimulate curiosity through hands-on experiences.

***Cognitive:***

- Learns about colors.
- Creates a work of art using pictures, symbols, or words from another discipline.

***Physical:***

- Enhances motor development.

***Self-help:***

- Develops planning skills.

***Communication/Literacy:***

- Responds to the work of others through body language, facial expression, or oral language.

- Asks and responds to questions.

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The Learning Site: http://www.hbschool.com/art

# Sequences of Developmental Growth

## *Language and Communication Development*

A Three Year Old

- Shows a steady increase in vocabulary, ranging from 2,000 to 4,000 words.
- Tends to over generalize meaning and make up words to fit.
- Uses simple sentences of at least 3-4 words to express needs.
- Pronounces words with difficulty.
- May have difficulty taking turns in conversation; changes topic quickly.
- Likes simple finger plays and rhymes.
- Asks many who, what, where, and why questions but shows confusion in responding to some questions; especially why, how, and when.
- Uses language to organize thought; overuses such words as but, because, and when.
- Can retell a simple story but must redo the sequence to put an idea into the order of events.
- Rarely makes appropriate use of such words as before, after, or until.

A Four Year Old

- Expands vocabulary from 4,000 to 6,000 words.
- Usually speaks in 5 to 6 word sentences.
- Likes to sing many songs; know many rhymes and finger plays.
- Uses verbal commands to claim many things.
- Likes to tell others about family and experiences.
- Expresses emotions through facial gestures and read others for body cues
- Can control volumes of voice for periods of time if reminded.
- Begins to read context for social clues.
- Uses more advanced sentence structures ("She's nice, isn't she?") and experiments with new constructions.
- Tries to communicate more than his/her vocabulary allows.
- Learns new vocabulary quickly if related to own experience.
- Can retell a 4 or 5 step directive or the sequence in a story.

A Five Year Old

- Employs a vocabulary of 5,000 to 8,000 words.
- Pronounces words with little difficulty, except for particular sounds.
- Uses fuller, more complex sentences.
- Takes turns in conversations.
- Listens to another speaker if information is new or interesting.
- Shares experiences verbally.
- Likes to act out other's roles.
- Remembers lines of simple poems, repeats full sentences.
- Uses nonverbal gestures (facial expressions).
- Can tell and retell stories with practice.
- Enjoys repeating stories, poems, and songs.
- Enjoys acting out plays or stories.
- Shows growing speech fluency in expressing ideas.

A Kindergarten Age Child

- Is curious, interested, eager, and active.

- Learns through firsthand experiences…exploring, manipulation materials, asking questions, making discoveries.
- Is capable of "losing self" in an activity that is of high interest.
- Assimilates information more readily when learning is presented in familiar context.
- Needs concrete experiences rather than abstract ideas.
- Needs many opportunities to share ideas with peers and adults in order to develop oral speaking and listening skills.
- Gains understanding of relationships through dramatic play, dramatization of stories, planning and constructing small group projects, and interacting in small group learning centers.
- Interactions with people and materials helps develop reasoning and memory.

## *Social and Emotional Development*

A Three Year Old

- May look on from the sidelines or engage in associative play patterns (playing next to a peer, chatting, etc.)
- Shows difficulty taking turns and sharing objects.
- Lacks ability to solve problems well among peers; usually needs help to resolve a social situation.
- Plays well with others and responds positively if there are favorable conditions in terms of materials, space, and supervision.
- Acts more cooperatively than does toddler and wants to please adults
- Can follow simple requests.
- Likes to be treated as an older child at times but may still put objects in mouth than can be dangerous or may wander off.
- Expresses intense feelings, such as fear and affection; shows delightful, silly sense of humor.

A Four Year Old

- Still engages in associative play but begins true give-and-take, cooperative play.
- Shows difficulty sharing but begins to understand turn taking and plays simple games in small groups.
- Becomes angry easily if things don't go his/her way.
- Most often prefers to play with others.
- Begins to spontaneously offer things to others; wants to please friends.
- Exhibits occasional outbursts of anger but is learning that negative acts bring negative reactions.
- Knows increasingly what self-regulation behaviors are expected but shows difficulty following through on a task; becomes easily distracted.
- Likes to dress self.
- Unable to wait very long regardless of the promised outcome.
- Shows greater ability to control intense feelings like fear/anger.

A Five Year Old

- Enjoys dramatic play.
- Cooperates well; forms small groups that may choose to exclude a peer.
- Understands the power of rejecting others; verbally threatens to end friendships or select others.
- Enjoys others and can behave in a warm and empathetic manner; jokes and teases to gain attention.
- Shows less physical aggression; more often uses verbal insult or threatens to hit.
- Can follow requests; may lie rather than admit to not following procedures or rules.
- May be easily discouraged or encouraged.
- Dresses and eats with minor supervision.
- Reverts easily to young behaviors when group norms are less than appropriate

A Kindergarten Age Child

- Searches for fairness, trust, and understanding.
- Needs positive support in resolving peer conflicts.
- Is somewhat self-centered and needs adult assistance in learning to share and take turns.
- Respects rules when involved in their development.
- Functions more effectively in small groups.
- Is in the process of developing an awareness that others do not perceive situations from the same perspective.
- Enjoys talking and responds to sincere listeners.
- Needs opportunities to interact with peers n a variety of settings.
- Accepts guidance and authority when the purpose is understood and reasonable.
- Exhibits regressive behavior when over-stimulated, extremely tired, or not feeling well.
- Needs success to help build a positive self-image.

## Fine-Motor Development

A Three Year Old

- Places large pegs into pegboards.
- Strings large beads.
- Pours liquids with some spills.
- Builds block towers.
- Easily does puzzles with whole objects represented as a piece.
- Fatigues easily if much hand coordination is required.
- Draws shapes, such as circle; begins to design objects, such as a house or figure; draws objects in some relation to each other.
- Holds crayons or markers with fingers instead of the fist.
- Undresses without assistance but needs help getting dressed; unbuttons skillfully but buttons slowly.

A Four Year Old

- Uses small pegs and boards.
- Strings small beads (or may do in a pattern).
- Pours sand or liquid into small containers.
- Builds complex block structures that extend vertically.
- Shows limited spatial judgment and tends to knock things over.
- Enjoys manipulating play objects that have fine parts.
- Likes to use scissors.
- Practices an activity many times to gain mastery.
- Draws combinations of simple shapes; draws persons with at least four body parts and objects that are recognizable to adults.
- Dresses and undresses without assistance.
- Brushes teeth and combs hair.
- Spills rarely with cup or spoon.
- Laces shoes/clothing but can not tie.

A Five Year Old

- Hits nail with hammer head.
- Uses scissors and screwdrivers unassisted.

- Uses computer keyboard.
- Builds three dimensional block structures.
- Does 10-15 piece puzzles with ease.
- Likes to disassemble and reassemble objects and dress and undress dolls.
- Has basic grasp of right and left but mixes them up at times.
- Copies shapes; combines more than two geometric forms in drawing and construction.
- Draws persons.
- Prints letters crudely but most are recognizable by an adult.
- Includes a context or scene in drawing.
- Prints first name.
- Zips coat; buttons well; ties shoes with adult coaching; dresses quickly.

A Kindergarten Age Child
- Has good locomotor control.
- Is in the process of developing small muscle control.
- Tires easily when movement is restricted.
- Has established eye, hand, and foot dominance.
- Enjoys participating in physical activities.
- Needs freedom of movement when pursuing learning activities.
- Needs opportunities for motoric exploration when working.
- Needs opportunities to develop rhythmic control of body.
- Needs activities that continue to refine fine muscle control.
- Needs experiences that develop responsibility for care and safety of body.
- Needs adult guidance in finding acceptable outlets for tension and emotions.

## *Gross-Motor Development*

A Three Year Old
- Walks without watching feet; walks backwards.
- Runs at an even pace; turns and stops well.
- Climbs stairs with alternating feet, using hand rail for balance.
- Jumps off low steps or objects.
- Shows improved coordination; begins to move arms and legs to pump a swing or ride a trike.
- Perceives height and speed of objects but may be overly bold or fearful, lacking a realistic sense of own ability.
- Stands on one foot unsteadily; balances with difficulty on the low balance beam and watches feet.
- Plays actively and then needs rest; fatigues suddenly and becomes cranky if overly tired.

A Four Year Old
- Walks heel-to-toe; skips unevenly; runs well.
- Stands on one foot for 5 seconds or more; masters the low balance beam (4 inch width) but has difficulty with 2 inch wide beam.
- Walks down steps; alternating feet; judges well in placing feet on climbing structures.
- Develops sufficient timing to jump rope or play games requiring quick reactions.
- Begins to coordinate movements to climb on a jungle gym or jump on a small trampoline.
- Shows greater perceptual judgment and awareness of own limitations and/or consequences of unsafe behaviors.

- Exhibits increased endurance with long periods of high energy; still needs supervision in protecting self in certain activities.
- Sometimes becomes overexcited and less self-regulated in group activities.

A five Year Old
- Walks backwards quickly.
- Skips and runs with agility and speed.
- Can incorporate motor skills into a game.
- Walks a two inch balance beam well.
- Jumps over objects.
- Hops well; maintains an even gait in stepping.
- Jumps down several steps.
- Jumps rope.
- Climbs well; coordinates movements for swimming or bike riding.
- Shows uneven perceptual judgment; acts overly confident at times but accepts limit setting and follows rules.
- Displays high energy levels; rarely shows fatigue; finds inactivity difficult and seeks active games and environments.

A Kindergarten Age Child
- Has good control of large muscles.
- Tires easily when movement is restricted.
- Enjoys participating in physical activities.
- Tends to play vigorously and fatigue easily but seldom admits being tired.
- Needs freedom of movement when pursuing learning activities.
- Needs opportunities for motoric exploration when working.
- Needs opportunities to develop rhythmic control of body.
- Needs activities that continue to nurture large muscle development.
- Needs experiences that develop responsibility for care and safety of body.
- Needs adult guidance in finding acceptable outlets for tension and emotions.

# EXPLANATION OF TERMS

***Alphabetic principle:*** The understanding that there is a relationship between letters and sounds (e.g. the word *dog* contains three letters and three corresponding sounds or phonemes).

***Adult-Initiated:*** The adult is a guide in each child's learning process. Underlying this approach is an understanding of how children learn best and a set of expectations that guide the adult in planning activities and experiences that are meaningful to children.

***Assessment:*** The process of observing, recording, and otherwise documenting the work children do and how they do it, as a basis for a variety of educational decisions that affect the child. In early childhood, assessment serves several different purposes: to plan instruction for individuals and groups and for communicating with parents; to identify children who may be in need of specialized services of intervention; and to evaluate how well the instruction and curriculum are meeting their goals.

***Authentic Assessment:*** The process of gathering evidence and documentation of a child's learning and growth in ways that resemble "real life" as closely as possible (e.g. observing and documenting a child's work as the child plays in the block area). To measure growth and progress, a child's work is compared to their previous work rather than to the work of others. Authentic assessment is based on what the child actually does in a variety of contexts at points throughout the school year. Authentic work represents the child's application, not mere acquisition, of knowledge and skills. Authentic assessment also engages the child in the activity and reflects best instructional activities.

***Child-Initiated:*** The child takes an active role in learning through active explorations of the environment, by sharing knowledge, and by interacting with adults and other children (e.g. the child brings in a butterfly found at home and wants to share it with the others).

***Comprehension:*** Understanding. Listening comprehension refers to spoken language, reading comprehension refers to written language.

***Curriculum:*** Virtually everything that happens in a child's life involves learning, whether explicitly identified as such or not. All activities and processes through which children learn and what adults do to help children achieve this learning including center work, field trips, organized play, sports, and even routine meals are integral parts of any early childhood curriculum. A developmentally appropriate curriculum is based upon three areas: (1) what is known about child development and learning; (2) what is known about the strengths, interests, and needs of each individual child in the group; and (3) a knowledge of the social and cultural contexts in which each child lives. Curriculum should always be planned based on the best knowledge of theory, research, and practice about how children learn and develop, with attention given to individual needs and interests in a group in relation to program goals.

***Decode:*** The ability to translate the alphabet letters into recognizable sounds (e.g. the letter f makes the */f/* sound) and words. NOTE: */r/* - This symbol refers to the letter sound, not the letter name.

***Expressive language:*** Children's accurate and fluent use and knowledge of words in the spoken language.

***Fine Motor:*** Refers to the control of the hand muscles with careful perceptual judgment involving eye-hand coordination. Sometimes referred to as small muscle control.

***Fluency:*** The ability to identify letters and words automatically and with speed.

***Gross Motor:*** Refers to the functional use of the limbs (arms and legs) for such activities as jumping, hopping, skipping, running, and climbing. Sometimes referred to as large muscle control.

***Hands-On*:** Children are doers striving to make sense of their experiences, to relate new information to what they already know, and to acquire understanding. Children's natural tendency to explore and figure things out is active, not passive. Children learn by doing, not simply by listening or looking.

***Informal Assessment*:** A non-standardized measurement by which the adult gauges what a child is able to do in various content areas. Informal assessment helps the adult tailor instruction and curriculum to meet each child's needs and interests.

***Inquiry*:** Active investigation, experimentation, and discovery. Because children are naturally curious, inquiry is a natural part of their lives.

***Instruction:*** Is the process for delivering the curricular goals of the program. This process involves strategies, activities, arrangement of the environment, and relationships with families. Instructional strategies will vary based on each child's needs and interests and each child's cultural and social context.

***Letter Knowledge*:** The ability to identify the letters of the alphabet.

***Phoneme:*** The smallest part of spoken language that makes a difference in the meaning of words. English has about 41 phonemes. Most words have more than one sound or phoneme (e.g. big has three phonemes ***/b/ /i/ /g/***). Sometimes one phoneme is represented by more than one letter (e.g. ck = ***/k/***).

***Phonemic awareness*** is a subcategory of phonological awareness (see below). The focus of phonemic awareness is narrow—identifying and manipulating the individual sounds in words.

***Phonological Awareness*:** The whole spectrum from an awareness of speech sounds: identifying and making oral rhymes; identifying and working with syllables in words; identifying and working with the beginning sound (onset) of a word and the part of the word following the beginning sound (rime); and identifying and working with individual phonemes in words (phonemic awareness).

***Phonics*:** The relation between letters and sounds in written words or an instructional method that teaches children these connections.

***Play*:** In a child's world, play is a child's prime educator. Play enhances the physical, social, emotional, and intellectual development of the young child. A child needs opportunities for play that are active and quiet, spontaneous and planned, indoors and outdoors, and done alone and with peers. When reviewed as a learning process, play becomes a vehicle for intellectual growth. Play involves not only materials and equipment, but also words and ideas that promote literacy and develop thinking skills. Play promotes problem solving, critical thinking, concept formation, creativity, and social/emotional development.

***Primary Language*:** The first language a child learns to speak, also known as their *home language*. For some children, this may be a language other than English.

***Problem Solving*:** The process of forming and revising explanations based on experience is the way that children learn. Open-ended questions or questions for which the child must come up with an answer (e.g. What do you think might happen next?) and investigative situations encourage children to discover on their own and to solve problems with minimal adult assistance.

***Receptive Language*:** Children's listening vocabulary and knowledge of spoken words.

***Standardized Assessment*:** An assessment (test) with validity and reliability from which scores are interpreted against a set of norms, such as state, national, or international norms. Group-administered, standardized, multiple-choice achievement tests are not appropriate before third grade. (NAEYC, 1999)

***Teachable Moments*:** Moments when specific topics spontaneously arise. The topic may emerge through discussion and call for a "lesson in a lesson".

***Vocabulary*:** The words of which one has listening and speaking knowledge.

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